OHIO STATE UNIVERSITY
MAR 13 1928
LIBRARY

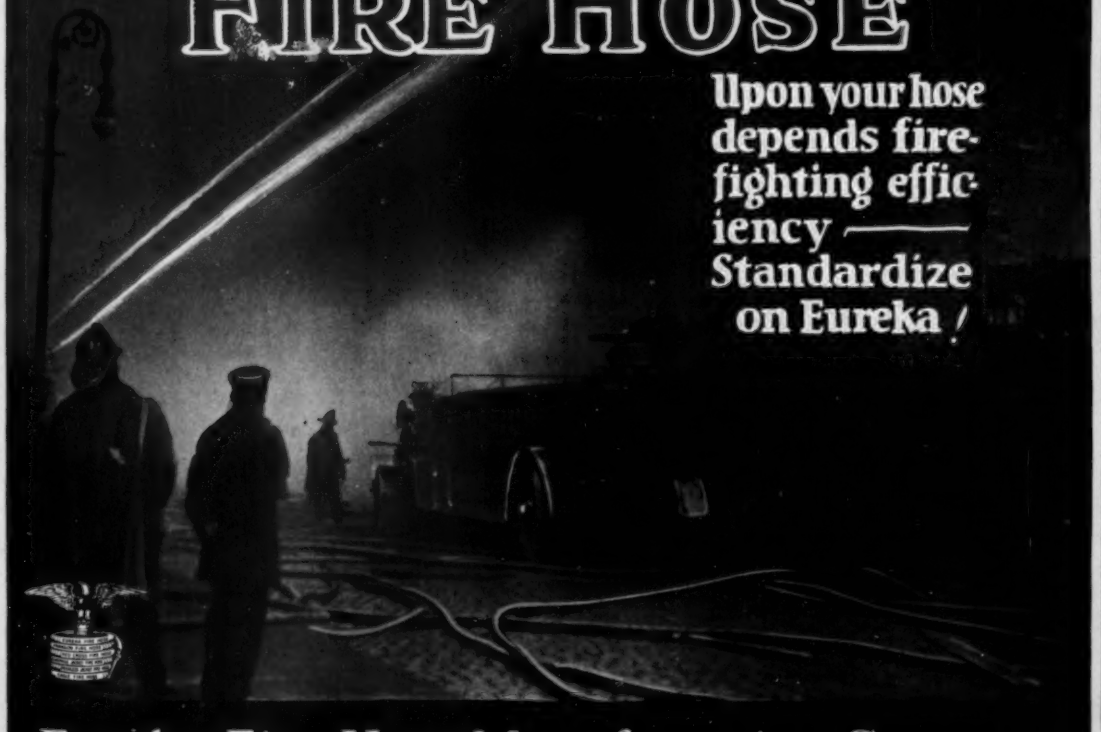
FIRE ENGINEERING

A Consolidation of
FIRE AND WATER ENGINEERING *and* THE FIRE ENGINEER

MARCH 7, 1928

EUREKA
FIRE HOSE

Upon your hose depends fire-fighting efficiency — Standardize on Eureka!



Eureka Fire Hose Manufacturing Company
50 CHURCH STREET, NEW YORK CITY
ATLANTA BOSTON CHICAGO COLUMBUS DALLAS DENVER DETROIT KANSAS CITY
LOS ANGELES MINNEAPOLIS NEW YORK PHILADELPHIA SEATTLE SYRACUSE

Guarding New York's Sky Line...

America's largest city now has six high pressure American-LaFrance fire engines—the first of their kind to be built. They will be available for duty in the skyscraper district.

These high pressure engines mark another forward step in modern, scientific fire protection equipment. The pumping unit is simple, smooth in operation, and dependable under severe conditions.

Practically all pumping cars in the City of New York, the city having the greatest property value in the world, are of American-LaFrance manufacture. Reliability when lives and property are at stake has put American-LaFrance fire apparatus in 90% of American fire departments.

Write for descriptive literature. American-LaFrance & Foamite Corporation, Engineers and Manufacturers, Elmira and Utica, N. Y.

AMERICAN-LAFRANCE & FOAMITE PROTECTION

A Complete Engineering Service for Extinguishing Fires

The Best Equipment on WHEELS is usually on FRENCH & HECHT WHEELS

THE leading makes of chemical fire engines are equipped with French & Hecht Steel Wheels. Leading makes of wheeled equipment in all industries are invariably equipped with French & Hecht Wheels.

French & Hecht Steel Wheels for fire engines, hose carts, barrel carts, trucks, wheelbarrows and all other wheeled equipment are lighter and stronger. These wheels are made in large quantities in the most efficient factory in America specializing in steel wheels.

The vast experience and facilities of this organization enable it to solve any wheel problem —producing a wheel that is mechanically correct for every purpose and every machine—at a lower cost than is possible in the average factory producing the machine itself. Any information concerning wheels will be gladly supplied. Write.

Each spoke is forged in the hub while hot, forming a head on the inside and a shoulder on the outside, similar to a boiler rivet.

The spokes are expanded in the rim with shoulders on the inside and the ends are riveted on the outside.

There can be no other Steel Wheels like French & Hecht because the essential features of construction are exclusively French & Hecht.

FRENCH & HECHT

Wheel Builders Since 1888

DAVENPORT, IOWA SPRINGFIELD, OHIO

FRENCH & HECHT

STEEL WHEELS

The Journal of the Fire Protection Profession Since 1877

MEMBER
Audit Bureau of Circulations
Assoc. Business Papers, Inc.

FIRE ENGINEERING

A Consolidation of FIRE AND WATER ENGINEERING and THE FIRE ENGINEER

Published Every Other Wednesday

SUBSCRIPTION PRICE
U. S. $3 a year; Canada $3.50
Foreign $4; Single copies, 25c.

Issued at Lyon Block, Albany, N. Y.
by CASE-SHEPPERD-MANN PUBLISHING CORP.
Also publishers of "Water Works Engineering," Technical Books, etc.

Executive, Editorial, Advertising and Subscription Offices,
225 West 34th Street, New York City
All communications, including Editorial, Advertising and Subscription, can be directed to either of the above addresses.

KARL M. MANN
President and Advertising Director

FRED SHEPPERD
Managing Editor

I. HERBERT CASE
Vice-Pres. and General Manager

H. S. ESSEX, Advertising Manager; ROBERT H. LOCKWOOD, Editor; N. N. WOLPERT, Asst. Editor

HAROLD T. MURRAY, Western Manager, 30 N. Michigan Ave., Chicago, Ill. Telephone: Franklin 0138

EDITORIAL ADVISORY BOARD

JOHN KENLON
Chief, New York Fire Dept., Founder of New York Fire College

JOHN C. MORAN
Chief, Fire Department Hartford, Conn.

GEO. J. KUSS
Former Deputy Chief N. Y. F. D.; Lecturer on Fire Fighting, Delehanty Institute, N. Y.

A. A. BELL
Chief of Fire Brigades and Engineer "America Fore" Group of Fire Insurance Cos.

What's News?

A SCORE of 160 isn't news; a score of 300 certainly is.

¶ FIRE ENGINEERING wants to know whenever any of its readers makes a ten-strike.

¶ Remember that we are g'ad to publish as news items the unusual occurrences in your Department, and this is the logical medium for passing on to your fellow members of the fire profession the news of your activities.

¶ So keep us posted, gentlemen, and we'll do our part, too, giving you a magazine more interesting than ever.

The Publishers

CONTENTS

MARCH 7, 1928

VOL. LXXXI No. 5

The Latest in Fire Patrol Headquarters, by Chief Frank C. McAuliffe (Illustrated) 185
New Building of Chicago Fire Insurance Patrol Just Opened.

An Assignment Card to Reduce Runs, by Frank J. Huber (Illustrated) 187
Suggested Card Eliminates Unnecessary Relocations of Fire Companies.

Boiler Plant Leveled by Big Blaze (Illustrated) 189
Fire in Pattern Shop Quickly Involves Wooden Roofs of Other Buildings.

With the Editor 191
Comments on Current Events and Live Topics by Our Editorial Staff.

Questions and Answers 193
Replies to Questions on All Manner of Subjects of Fire Fighting and Fire Protection.

Recent Important Fires Specially Reported (Illustrated) 195
Fire in South Church, New Britain—Burnings of Two Weeks.

Fire Department Improvements 210
Record of Business Activities in the Fire Protection Field.

Fire Department Activities 209
Newsy Notes from All Over the Country with Matters Firemanic.

Of Interest to Volunteer Fire Department 201
Matters of Importance to Volunteer Firemen.

False Alarms 213
The Humorous Side of the Fire Protection Profession.

Contents of this issue copyrighted, 1927, by Case-Shepperd-Mann Publishing Corp., 225 W. 34th St., New York City
Entered as second class matter at the Post Office, Albany, N. Y., January 29, 1926, under the Act of March 3, 1879.

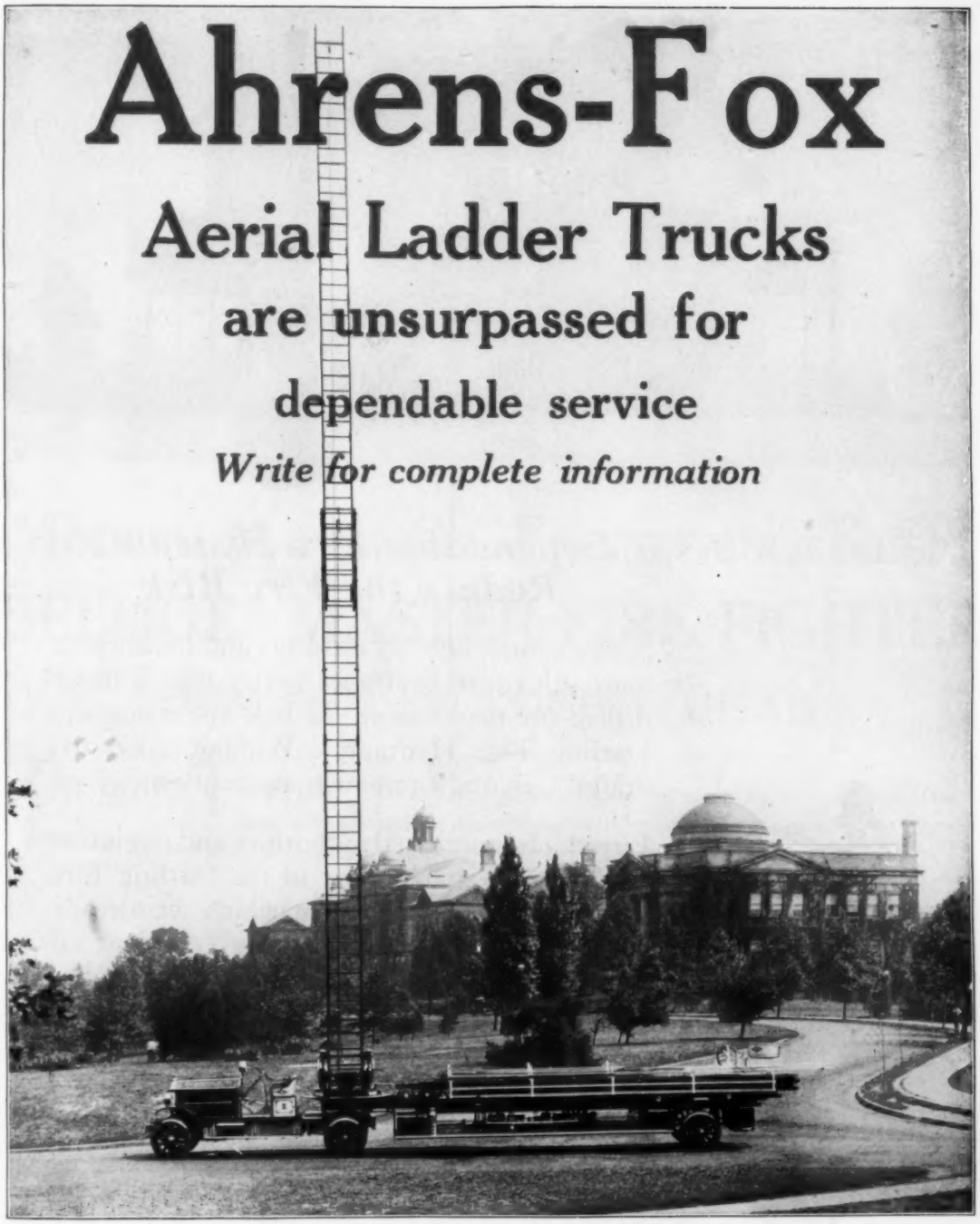
Ahrens-Fox

Aerial Ladder Trucks

are unsurpassed for

dependable service

Write for complete information



The Ahrens-Fox Fire Engine Co.

"Builders of Quality Fire Engines"

Cincinnati, Ohio

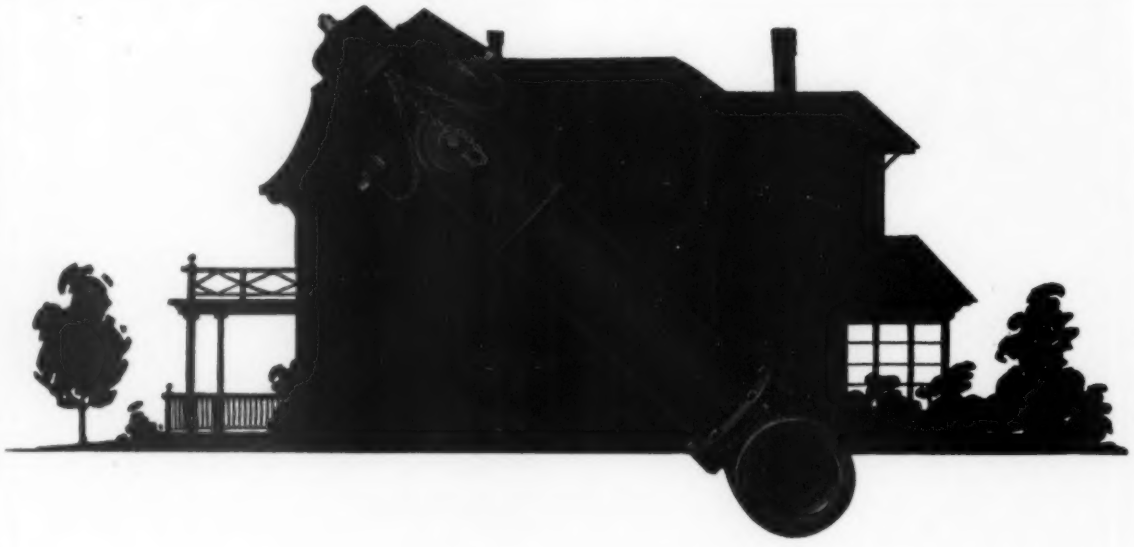
Eastern Representative
J. A. PRESCOTT
Fisk Bldg., New York

New England Representatives
CARLOW AUTO CO.,
Taunton, Mass.

Chicago Representative
HENRY R. EARLY
Hotel Woodmere,
4641 Woodlawn Ave.

Southwestern Representatives
PIONEER FIRE EQUIPMENT CO.
3600 Commerce St.
Dallas, Texas

California Representatives, PACIFIC FIRE EXTINGUISHER CO., San Francisco, Cal.
Canadian Representatives, THE BICKLE FIRE ENGINE CO., Woodstock, Ontario
Pacific Northwest Representatives, A. G. LONG CO., Portland, Ore.



Dependable Fire Hydrants Reduce the Fire Risk

A city cannot offer its residents and industries a more gilt edged insurance policy than a finely drilled fire department, the best apparatus and Darling Fire Hydrants. Without good hydrants, men and equipment are helpless.

Fire chiefs, municipal authorities and engineers join in extravagant praise of the Darling Fire Hydrant. They testify that which we already know to be true—"that Darling combines all the good qualities a fire chief is seeking in a fire hydrant." In other words, the Darling Fire Hydrant is sturdy, delivers maximum water to the nozzles with no perceptible loss in pressure, closes with the pressure, preventing escape of water in case of breakage through collision, and may be inspected and cleaned through the top.

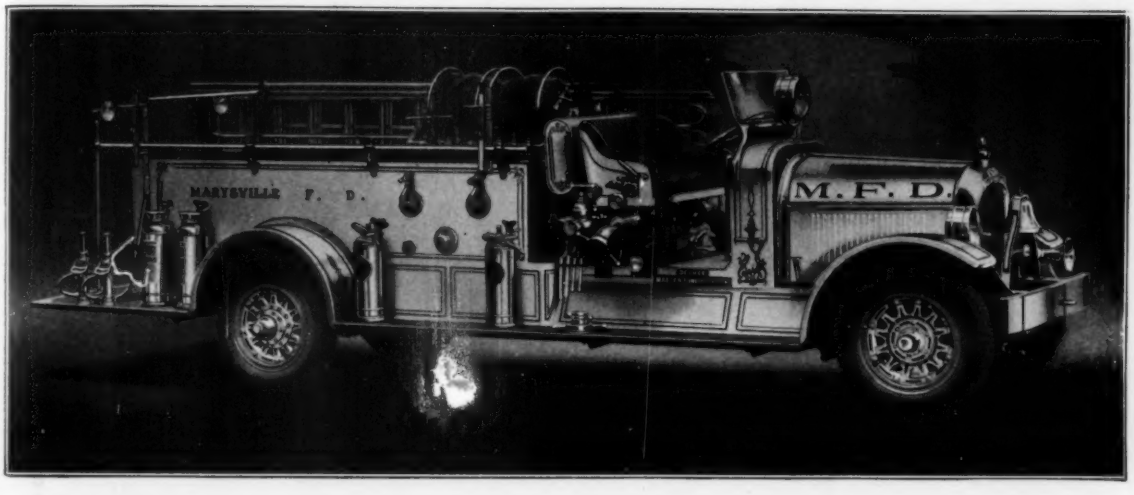
Darling Gate Valves are unsurpassed for underground service

Catalog will be sent upon request

DARLING VALVE & MANUFACTURING CO.
WILLIAMSPORT, PA.

NEW YORK CHICAGO OKLAHOMA CITY HOUSTON

DARLING FIRE HYDRANTS



MODERN ADVANCED ENGINEERING KEEPS "DELUGE" MASTER FIRE FIGHTERS JUST A FEW STEPS AHEAD

Do you know--

THAT the "DELUGE" Master Fire Fighter was one of the first specially designed fire trucks with capacities ranging from three hundred to five hundred gallons per minute.

That the "DELUGE" Rotary Fire Pump was designed and controls patents which give it the highest efficiency in fire service. That its all bronze interior eliminates rusting, freeing it from packing box trouble and cutting shafts. That it is an adjustable pump, the impeller shoes and shims making possible the retaining of original efficiency for many years. That it can be used in connection with booster tank without danger of injuring the pump. That we have never had complaint of stuffing box, bearing, shaft or transmission trouble. That it is always primed, can be used as a dry pump, is provided with an integral heater for cold weather. That it operates with unbelievable smoothness.

That "DELUGE" Chemical Tanks are the easiest and simplest to operate of any ever built in this country.

Critical investigation will convince you of the superiority of "DELUGE" Pumps and equipment.

"DELUGE" Equipment is furnished on the special "Master Fire Fighter" Chassis or on any Standard Commercial Chassis.

We have territory open for some good live representatives.

THE PROSPECT FIRE ENGINE COMPANY
Prospect, Ohio

Conflagration Proof!

The disastrous fire at Fall River, Massachusetts, Feb. 2, proves again the wisdom and economy of a modern fire alarm system. Five years ago Fall River modernized its fire alarm system. The central office was put in an isolated fire-resistive building, and the wires put undergroud.

This spectacular conflagration which was confined to the business district would have wiped out most of the city, leaving thousands homeless, with possible loss of life, if it had not been for the fire alarm system.

Embers carried by the high wind set fires at twenty-five different places in the City, thereby necessitating twenty-five different alarms to be sent in over the facilities provided for such an emergency—the fire alarm system. Every one of these fires was extinguished quickly because of the prompt working of this system, the efficient work of the Fall River Fire Department and the outside aid.

The telephone operators stuck to their posts until the flames were licking at the building and the force was ordered out by the firemen. All telephone communication was suspended and the city was forced to rely on the fire alarm telegraph.

The fire alarm circuits in the down-town area were virtually all underground. Only one circuit was in trouble and that only for twenty minutes. Only three boxes were out of service and these right in the heart of the conflagration where it was impossible to work on them.

The city officials of Fall River have the satisfaction of knowing that their foresight contributed largely to preventing a city-wide conflagration that would have ranked with the worst the country has known. The city officials who have charge of other fire alarm systems have this same opportunity—and same responsibility.

The Gamewell Company

Newton Upper Falls, Mass.

"A Box A Block"

FIRE ENGINEERING

(A Consolidation of FIRE AND WATER ENGINEERING and THE FIRE ENGINEER)

The Journal of the Fire Protection Profession

VOLUME LXXXI MARCH 7, 1928 NUMBER 5

The Latest in Fire Patrol Headquarters

New Building of Chicago Fire Insurance Patrol Just Opened—Modern Equipment Installed Throughout—Method of Drying Covers

By FRANK C. McAULIFFE, Chief of Patrols, Chicago Fire Insurance Patrol

THE newly-opened headquarters of the Chicago Fire Insurance Patrol is considered one of the most modern and up-to-date installations of its kind in the country. The following description by its wide awake Chief of Patrols gives a very clear idea of its salient features:

With a view to relocating patrol companies placed in service during horse-drawn apparatus days, the Chicago Board of Underwriters have recently erected a new headquarters station for the Chicago Fire Insurance Patrol. The building was constructed at No. 100 South Desplaines Street, which is midway between the former locations of Patrols Nos. 1 and 2.

The station was built to accommodate these two companies which cover the district from Lake Michigan on the east, Roosevelt Road on the south, Ashland Avenue on the west and Kinzie Street on the north. This territory includes the congested value district and approximates four square miles.

Work of Patrol in 1927

During the year 1927 Patrols Nos. 1 and 2 responded to 3,065 alarms, the apparatus traveled 5,279 miles on fire alarms, and the Companies spread 7,239 covers over stock threatened with water damage. 202 roofs, partially destroyed by fire, were attended at which 512 roof covers were used to make temporary repairs. These companies replaced 379 sprinkler heads at fires to which they responded and performed 1,259 company hours of actual fire duty. The company officers made 242 building inspections. These figures are cited to show the importance of these companies, and the amount of work that can be expected to be performed from and in the new quarters. This will be the busiest fire station in the City of Chicago, and probably the busiest in the country.

Quarters for Officers and Men

The new station contains the headquarters office, (Fig. 6), quarters for the Chief Officer, and accommodations for thirty-four officers and men. (Figs. 3 and 4.) These officers and men are divided into two companies of equal strength working on the twenty-four hour two platoon basis. The apparatus floor is of ample dimensions to accommodate two salvage trucks and the Chief Officer's car, with additional space for an extra car. (Fig. 2).

The Cover Drying Room

Shelf space is provided for six hundred covers, the shelves being made of steel. Dry room facilities are provided on the first floor with a drying rack made to accommodate ninety covers hung over two supports to facilitate quick drying. (See Fig. 8.) Covers so hung can be dried in fifteen hours. In emergencies one hundred and eighty covers can be hung over single supports in

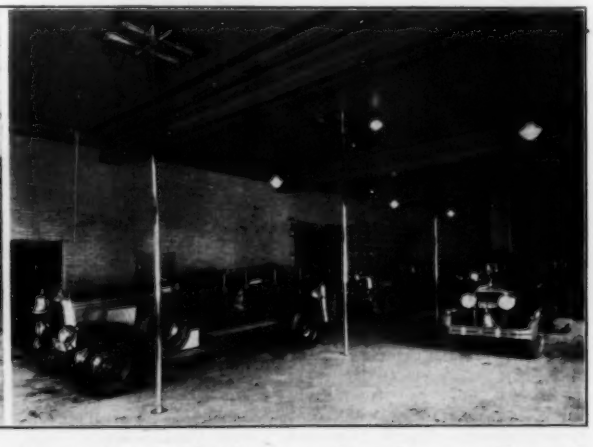


Fig. 1 (Left), New Headquarters Station of the Chicago Fire Patrol. Fig. 2 (Right), Commodious Apparatus Room of the Station. Note the Sliding Pole Hole Covers

which event it requires several additional hours for drying. The drying rack is made of one and one-half inch galvanized iron pipes supported on the ends by steel platforms from which the covers are pulled up and over the supports. Sufficient radiation is installed on all four walls to heat the room to ninety degrees at outside temperatures of ten degrees below zero. Two ventilating exhaust fans are used to change the air in the drying room which prevents dampness from entering the other rooms, and more rapidly drying the covers. In summer

(Continued on page 200)

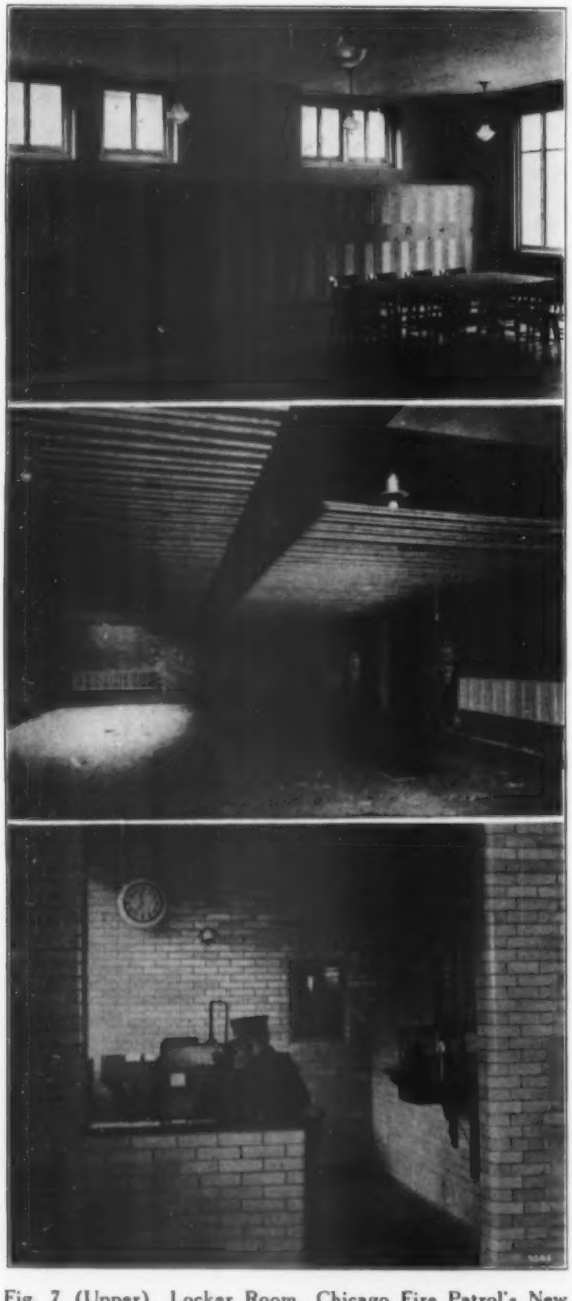


Fig. 7 (Upper), Locker Room, Chicago Fire Patrol's New Headquarters. Fig. 8 (Center), Cover Drying Room, with Rack for Covers near Ceiling. Adjustable Repair Kit for Auto Equipment Is Shown in Right Foreground. Fig. 9 (Lower), Switchboard and Alarm Apparatus of Station

Data Offered on Lacquers

Many industries are now using quick-drying paints and the use of such paint has even spread to the home. There is some danger in using it because of the proxylin base. A bulletin has been issued on the subject by the Louisiana Rating and Fire Prevention Bureau of New Orleans, as follows:

"Since the recent perfection of quick drying paints, varnishes, japans, lacquers and other flammable finishes, there has been an amazing increase of spray application of surface coating materials.

"That general ignorance of the properties of these lacquers and of the spraying processes themselves has contributed greatly to the losses which have attended their use is evident from the review of the fire record. In spite of warning by experts familiar with the dangers and in spite of the existence of carefully prepared rules for the control of the hazards attending the use of the processes, workmen, manufacturers and insurance interests have paid a heavy price in life and property.

"In the process of spraying lacquer, paints and varnishes, the liquid is discharged as a mist from a spray 'gun' by means of compressed air. The mist and the flammable vapors which emanate from it and from freshly coated surfaces may be easily ignited from any open flame or electric or other sparks. Under certain conditions these vapors may form explosive mixtures with air so that upon ignition there is an explosion.

"In addition to the hazards of fire or explosion because of the vapor air mixture there is an extreme hazard in the oily and resinous deposits from paint or varnish spraying, which may be ignited by spontaneous heating, by a flash in the spray vapors at the booth or gun, or by a spark from fan blades, heat or sparks from motors, or from any one of many extraneous causes. When they burn, they burn persistently, with great heat and much black smoke (which in itself is explosive) and the spread of fire is so rapid and the heat so intense the use of hand extinguishers, etc., is not practical.

"Our many inspections of properties disclose the fact that in a great many cases inexperienced persons apply flammable finishing materials under conditions not at all suitable, for we find rooms and buildings previously containing other processes are used for spraying without regard to the increased hazard.

"It should be strongly impressed upon those responsible for the methods of plant operation that the spray process of finishing is inevitably accompanied by the generation in considerable quantities of vapors from the volatile solvents and residues from the finishing material, whether proxylin lacquers, paints or varnishes; that both the vapor and the residue are highly inflammable and may be explosive; and that only the best of safeguards supplemented by 'good housekeeping' and the continued exercise of care on the part of the operator can serve to offset the potential hazards inseparable from the process.

"Regulations for paint spraying and spray booths will be gladly furnished by this Bureau."

Fire Breaks Out Four Miles from Origin

Fire broke out in a three-story brick structure of the Atlantic Coast Line Railway telephone building at Savannah, Ga., about four miles from the point where the direct cause of the fire was located.

A pole supporting a 550-volt line at Central Junction, Ga., was burned from a grass fire and caused the wire to fall on lightning arresters of telephone system. The lightning arresters in Savannah failed under the excessive current load and became overheated. This started the fire.

A chemical company was the first to arrive upon receipt of a telephone alarm. The captain sent in an alarm from a fire alarm box. Firemen had a three-hour battle before the fire was under control. The three-story structure was a roaring furnace and flames soon leaped to the warehouse of the Savannah Fish and Oyster company. A large number of wooden drums containing lead telephone cables and a dozen or more gasoline motor cars used by the railroad were destroyed in a nearby shed. The total loss was approximately $35,000.

JOHN A. STULB.

Elmira Training School Reestablished—The fire department of Elmira, N. Y., has re-established its training school.

Salem, O., May Purchase Apparatus—Council in Salem, Ohio, are considering the advisability of purchasing a pumper to replace one located in the central station.

Larchmont, N. Y., Wants Other Fire Alarm System—Larchmont, N. Y., is considering the installation of another fire alarm system to replace the present fire alarm whistle.

Westchester County Seeking Cooperation—Plans are being worked out for various fire companies in Westchester County, N. Y., to come to each other's aid in case of a conflagration. A meeting was held at the Lions Club, Larchmont, N. Y., at which Chief Jones of New Rochelle spoke. Chief Charles Caputo of Mamaroneck and Chief George S. Towle were present as guests.

An Assignment Card to Reduce Runs

Suggested Card Eliminates Unnecessary Relocations of Fire Companies—District Always Protected by Fire Companies Acquainted Therewith

By FRANK J. HUBER

SOME time ago there appeared in FIRE ENGINEERING an item by A. C. Hutson, assistant chief engineer of the National Board of Fire Underwriters on covering-in for multiple alarms. To further illustrate this I have developed some drawings. This study will only consider engine companies, although ladder companies, squad companies and chief officers can be assigned in a similar manner as the one described.

The upper half of the assignment card shows companies that are to respond to fires on the first, second, third, fourth and fifth alarms respectively. Companies that are to change their location are shown for second alarm only, giving the company number to which they are to relocate. The companies nearest to the box locations are sent on the first alarm as it is the first moments at a fire that count.

Companies for second, third, fourth and fifth alarms are drawn from locations where it will not be necessary to reassign other companies as there will be sufficient companies in quarters. Because of the speed developed by motor apparatus, it is not necessary to summon the closest companies after the first alarm units have responded. Companies can arrive from distant locations in sufficient time to get to work without being in the way of the other fellow. It is a great burden on the officer in charge to have all companies move in at once and await instructions.

It will be noted that for an assignment of twenty-five engines, only two companies need to change location in order to cover the district vacated by first alarm companies. Both companies travel only a short distance and can make their respective runs in from two to three minutes. All other vacated quarters are covered by neighboring units.

Companies assigned to fire on various alarms are in succession to one another each drawn from opposite points from where the fire is located. By referring to the assignment card and map, one can note the following:

Second alarm
14(north) 7(west) 104(south) 27(north) 6(west)
Third alarm
9(south) 12(west) 90(north) 2(south) 31(west)
Fourth alarm
33(north) 19(south) 105(west) 55(north) 15(s. west)
Fifth alarm
44(west) 35(n.west) 29(south) 111(n.west) 50(south)

This arrangement avoids accidents due to too many companies coming from the same direction for a common objective, or crossing each others' path. The companies are not drawn from the same section but from a large area.

The distance traveled and the time required to reach the box location is as follows:

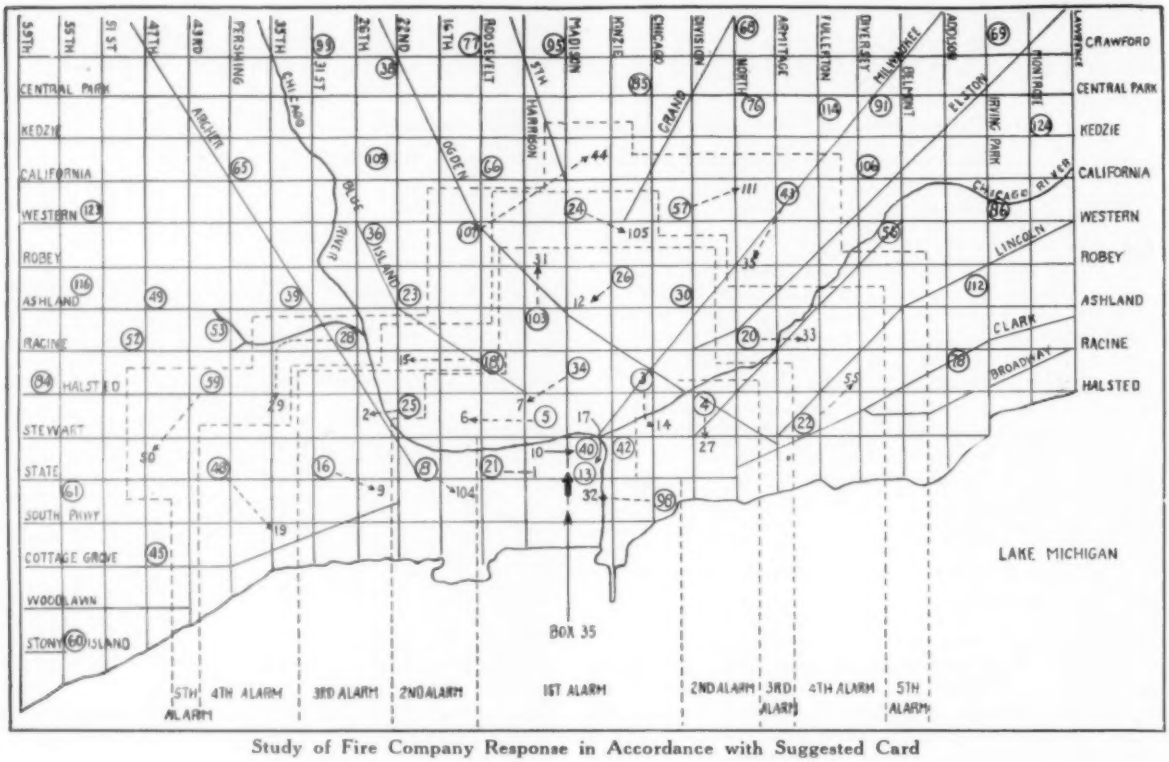
	Engine	Miles	Minutes	
2nd alarm:	14	1¾	5	
	7	1½	5	Average 1¾ Miles
	104	1¾	4	Average 5 Minutes
	27	2	6	
	6	2	6	
3rd alarm:	9	2¼	7	
	12	2¼	7	
	90	2½	8	Average 2½ Miles
	2	3	9	Average 8 Minutes
	31	2¾	8	
4th alarm:	33	3½	11	
	19	4	12	
	105	3½	11	Average 3½ Miles
	55	4	12	Average 11 Minutes
	15	3½	11	

35 — STATE & MADISON

ALARM NO	FIRE BOAT	ENGINE CO	BOAT TENDER	HOSE CO	FOAMITE CO	CHEMICAL CO	HIGH PRE CO	TOWER CO	LADDER CO	SQUAD CO	CHIEF OFFICER	DIVISION CHIEFS	BATT CHIEFS	ENGINE CO	LADDER CO	SQUAD CO	BATT CHIEFS
		APPARATUS TO RESPOND TO FIRE UPON RECEIPT OF ALARM												APPARATUS TO CHANGE LOCATION UPON RECEIPT OF ALARM			
1		13 40 11 32 1					3	1	1	6 9 1		1	3 1 25				
2		14 7 104 27 6							31	2		7	2 6	10-40	17-13	2-6	8-1	2-1
3		9 12 90 2 31					2	2	39	10			10					
4		33 19 105 55 15							10									
5		44 35 29 111 50																
		APPARATUS IN RESERVE, FOR ADDITIONAL ALARMS, SECOND FIRE, OR SUBSTITUTING TO RESPOND, UPON ORDERS FROM FIRE ALARM HEADQUARTERS ONLY															
1 or 6		17 10 42 98 21							2	3 8		8	4 2 9					
2 or 7		3 34 8 4 5					4	4	1	7		5	6 5					
3 or 8		16 26 30 25 103							5	6			7					
4 or 9		20 48 24 22 18							19									
5 or 10		107 43 28 57 59																

IN SERVICE FEB. 1, 1928

Suggested Form of Assignment Card



Study of Fire Company Response in Accordance with Suggested Card

5th alarm:	44	4¼	13	Average 4½ Miles Average 14 Minutes
	35	4	12	
	29	4	12	
	111	5	15	
	50	5	15	

Speed figured at three minutes per mile, to allow for rush hour traffic congestion; delays at bridges, railroad crossings; street and weather conditions.

The covering in or subsequent alarms for other fires, after a five alarm response to box 35 would be as follows:

Engine 10 relocates in Engine 40 } on second alarm
Engine 17 relocates in Engine 13 }

Engine 13 district is covered by Engine 17 in 13's quarters
" 40 " " " " " 10 in 40's quarters
" 11 " " " " " 98, 42, 17 from 13's quarters
" 32 " " " " " 98, 21, 17 from 13's quarters
" 1 " " " " " 21, 5, 17 from 13's quarters
" 14 " " " " " 42, 98, 4, 3
" 7 " " " " " 5, 18, 34
" 104 " " " " " 21, 8
" 27 " " " " " 98, 42, 4, 22
" 6 " " " " " 5, 18, 25, 21
" 10 " " " " " 21, 5, 10 from 40's quarters
" 17 " " " " " 5, 34, 3, 10 from 40's quarters
" 9 " " " " " 8, 16
" 12 " " " " " 34, 103, 24, 26
" 90 " " " " " 4, 3, 30, 20
" 2 " " " " " 8, 16, 28
" 31 " " " " " 103, 107, 24
" 33 " " " " " 22, 20, 56
" 19 " " " " " 16, 48, 45
" 105 " " " " " 26, 24, 57, 85
" 55 " " " " " 22, 78, 56
" 15 " " " " " 25, 18, 23, 28
" 44 " " " " " 24, 66, 95, 85
" 35 " " " " " 20, 30, 57, 43
" 29 " " " " " 59, 39, 28, 16, 48
" 111 " " " " " 57, 43, 76
" 50 " " " " " 45, 61, 52, 48

Companies covering-in for absent companies would be due in the neighboring district on the first alarm and it is only necessary for them to travel but a short distance. The greater number of companies remaining in quarters near the fire know the district, the building occupancies and hazards better than the companies from outlying sections.

The lower half of the assignment card is for fire alarm headquarters use only. It shows the companies that remain in quarters. When companies are drawn from the lower half of assignment card to substitute for absent companies regularly assigned, it is necessary that the fire alarm operator relocate another company in substituting company quarters. The companies on the lower half of card must at all times be filled.

Suppose that after a third alarm, an explosion takes place and the chief officer at the fire, instead of asking for a fourth and fifth alarm, instructs fire alarm headquarters to send the ten nearest additional engine companies. It would only be necessary to send a special call for the ten companies shown on first and second lines of the lower half of card. They would be closer than the fourth and fifth alarm regular assignments.

Can Take Care of Two Fires at Once

This form of assignment card can take care of two fires at the same time. After that it is necessary to make manual changes in relocating companies from distant points for filling in.

The assignment cards in many cities have too many companies moving from one station to another. Sometimes it is necessary to shift several times before they are finally sent to the fire. This is confusing for the fire alarm operator. Just as few companies as possible should be shifted so that many more companies would be available for later fires. Apparatus is thus kept off the streets except when actually responding or returning from alarms or working at fires. Time is saved in traveling from one station to another.

Proposed Plan Provides for Emergency

Try to picture one of the metropolitan cities with its high value district or business center, and with the

(*Continued on page* 210)

Boiler Plant Leveled by Big Blaze

Fire Gets Good Start in Pattern Shop and Quickly Involves Wooden Roofs of Several Large Buildings

IT has been said that all large fires have many points in common. While this may or may not be so, it is certain that big fires ofttimes show the same or similar errors in judgment on the part of the operating forces. But this is natural, for the human element is always an uncertain one, and the failure to use good judgment in the event of a fire of staggering proportions might well be expected.

The fire described in this article of the series on administration occurred in a large central west city on a cold March day a few years ago.

The city has a population of approximately 100,000.

The fire department consisted of eight engine companies, three truck companies, two chemical companies and one hose company.

Equipment of companies was as follows: Engine Cos. Nos. 1, 4, 5 and 6, 700 gallon triple combination machines; Engine Cos. Nos. 2 and 3, 750 gallon triple combination; Engine Co. No. 7, 1,000 gallon combination hose and pumper; Engine Co. No. 8, 500 gallon triple combination; Truck Cos. Nos. 1 and 3, City Service Trucks; Truck Co. No. 2, aerial truck; Chemical Cos. Nos. 1 and 2, combination hose and chemical car; Hose Co. No. 1, automobile hose car carrying 2,000 feet of hose.

Response to alarms as follows: First alarm, Engine Cos. Nos. 1, 2, 3 and Truck Co. No. 1.

Second alarm, Engine Cos. Nos. 4, 5, Chemical Co. No. 1 and Truck Co. No. 2.

Third alarm, Engine Cos. Nos. 7 and 8 and Truck Co. No. 3.

The other two companies, Chemical Co. No. 2 and Hose Co. No. 1 responded only on special call.

Water Supply

The water supply in the city in which this fire occurred may be classed as very good with the exception of the outlying sections which were supplied by six and four inch mains only. The plant involved in this fire happened to be located in one of the outlying districts, and the supply was therefore of a limited nature, as will be noted by the size of mains and hydrants marked on the diagram herewith.

The Plant

The layout of the plant is shown in the diagram herewith.

The pattern shop was a two-story structure occupied on the ground floor as a pattern shop and on the second floor as pattern storage. The building was of frame construction.

Stock room alongside pattern shop was of one-story construction brick, with wooden roof.

The boiler shop and other buildings were of the height and construction as noted in the diagram.

The car shop and blacksmithy was engaged in car repairing with forges and metaltrade furnaces installed therein. Oil fuel from 400 gallon pressure tanks which were located within this building. A considerable amount of wood working on heavy material was done.

The boiler shop was engaged in repairing locomotives, boilers, steam shovels and mining equipment. It included one iron forge, motor driven furnaces, oxygen torches, acetylene generator and other boiler shop equipment.

The office building, stock room, shop, and machine shop, in the group to the west of North Fourth Street were occupied with the usual line of operations and equipment characteristic of these buildings.

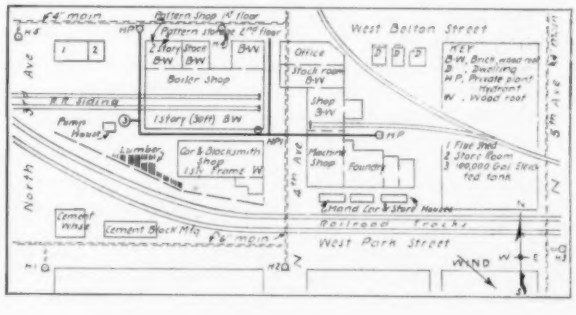
The Fire

The fire apparently started around closing time on a windy March evening (5:30 P. M.) but was not discovered until around 7 o'clock when the pattern shop was well ablaze on both the first and second floors. It is believed that a small heater used for heating shellac set fire to shellac in a metal container and the fire resulted therefrom. Upon discovery of the fire a box alarm was transmitted and a first alarm assignment as noted above responded.

The assistant chief of the department arrived with the apparatus and assigned the engines as follows:

Engine Co. No. 1 at hydrant No. 4, and two lines stretched to the pattern shop on West Belton Street. Engine Co. No. 2 at hydrant No. 2, a single line being stretched to the pattern shop.

Engine Co. No. 3 at hydrant No. 1 and a single line



stretched to the boiler shop to operate on the roof of this building, which was showing signs of heat.

These four lines continued in operation for possibly ten minutes when the chief arrived. Upon his arrival he noticed that the northeast section of the roof was seriously endangered and ordered the transmission of a second alarm which brought out the companies noted in the running card above.

Before the arrival of any of these companies, however, the roof of the boiler shop burst into flame, and the wind carried the fire out of reach of the streams operating from the outside or the stream beneath the roof in the boiler shop.

The wind drove the fire through the monitor top of the building. Upon the arrival of the second alarm assignment, Engine Co. No. 4 was stationed at hydrant No. 3 and a single line stretched through the boiler shop to the court just west of the stock room, at the north side of the boiler plant. This line operated in wetting down the roof of the stock room. Engine Co. No. 5 was placed at hydrant No. 5 and a single line stretched up ladder to operate on roof of the boiler shop.

When this last engine was put in operation there was a distinct drop in pressure and it was apparent that the engine could not be used to its full capacity due to vacuum being created.

No more engines were assigned for a few minutes, due to the fact that all available hydrants on the city system were occupied by engines.

The fire in the pattern shop got hotter and the roof of the boiler shop was soon ablaze along its entire north half.

Upon the first sign of fire coming through, embers began to drop and the men had to back their line away.

It was at this time that the chief decided to employ the plant water facilities, consisting of a 100,000 gallon elevated tank well filled, a 300 gallon per minute pump and several private fire hydrants.

About the time the first engine was placed, Engine Co. No. 6, at hydrant P1 of the private system, the metal beams supporting the roof began to warp and the men had to withdraw from inside the boiler shop entirely.

Two lines were laid from Engine Co. No. 6 around the boiler shop to the West Belton Street side and operated on the brick stock room which was beginning to show the effect of the fire.

A third alarm was at this time transmitted, bringing in the apparatus as noted in the running card.

Before any of the apparatus on the third alarm arrived, the entire roof of the boiler shop was ablaze and part of this had already fallen into the building. Fire quickly started in the combustible materials in the boiler shop, particularly around the wood working machinery, and it was apparent that little could be done toward saving this building.

The high ceiling, together with the large open area within, made spread of the fire very fast.

When the apparatus arrived on the third alarm fire had reached the roof of the car shop and was also seriously threatening the office, stock room, and shop building to the west of the fire building.

Lines were reassigned to cover the car shop, but so intense did the fire in the boiler shop become that little progress could be made. As a result the car shops were soon fully ablaze.

Fire also reached the lumber piles to the southeast of the fire building forcing lines on this side of the building to withdraw.

The chief, figuring that the boiler shop and car shops were doomed, concentrated all efforts toward preventing the fire from jumping across Fourth Avenue.

In this he was partially successful although the office building and stock room were finally involved by fire.

A reassignment of lines and the connecting up of Engine Cos. Nos. 7, 8 and 9 to private hydrants brought sufficient streams into play to enable the department to check the fire in the stock room and office building.

As it was, the boiler shop, car shop, lumber piles, office building and stock room were considered completely lost. The shop part of the stock room and the machine shop, together with group of buildings to the west thereof, were saved as were also the dwellings to the west of the office building.

The Editor's ideas on the handling of this fire will be given in the next issue.

Box 52 Association Visits Laboratory—For the regular February meeting, the Box 52 Association of Boston visited the Factory Mutual Laboratory where an illustrated talk was given by C. W. Mowry, assistant manager of the Factory Mutual Fire Insurance Companies. Later, members went to quarters of Ladder No. 8 where a light lunch was served.

Gov. Smith Reviews Firemen's Parade

About three thousand volunteer firemen including units from Kings and Nassau counties on Long Island, Wilmington, Del., and Newcastle and Philadelphia, Pa., passed in review before Governor Alfred E. Smith as he watched the thirty-seventh annual parade from a stand in front of Borough Hall, Brooklyn.

Firemen hauling ancient fire apparatus that were used by their grandfathers were just as proud as those who sat on shiny motor equipment. There were the red shirts, polished fire trumpets and other accessories that are so characteristic of some

Governor Alfred E. Smith of New York Reviewing the Volunteer Firemen's Parade

volunteer fire units. Sixteen bands were in the parade. That meant that the Governor had to hear the strains of "The Sidewalks of New York" that many times. On the grand stand was tied a banner, "For President, Alfred E. Smith."

He refused to talk politics and said:

"No politics. This is George Washington's birthday and Bill Todd's parade."

William H. Todd, honorary deputy chief of the association, was honorary grand marshal and his aides were Honorary Battalion Chiefs Edward J. and William F. Kenny. John H. Conk was grand marshal.

Chief William Lutz of Wilmington was with Commissioner Dorman of New York city. There were one hundred men and twenty-five women in the Wilmington delegation. Chief Ross

Thousands Watching the Volunteers Parade

Davis of Philadelphia headed the Philadelphia volunteers. The parade was led by the New York Fire Department band.

At a dinner following the parade, Governor Smith recalled the time that he was a buff around Engine 32 in John street. He told Mr. Dorman that the fire department lost much of its romance when it lost the horses.

Sewell Cushion Wheel Mfg. Co., Incorporated—The Sewell Cushion Wheel Manufacturing Company of 4001 Beaufait avenue, Detroit, manufacturers of the Sewell Cushion Wheel have recently incorporated under the laws of Michigan. J. H. Hames, president, is also vice-president of the Sewell Cushion Wheel Company, manufacturers of steering wheels.

WITH THE EDITOR

Firemen as Traffic Officers

The latest job, of the many that the fireman is called upon to perform outside of his regular routine, is that of "traffic cop"! In New York City recently a fire company on the way to a blaze in mid-Manhattan was compelled to halt and its members assist the constituted guardians of the peace in untangling a mass of traffic which blocked their progress. This occurred in two instances and to two different units answering the same alarm.

This condition is by no means new in the experience of the firemen of the big city. With the thousands of taxicabs and other cars cluttering up the streets and avenues provision for a quick and safe passage of the fire apparatus is becoming more and more of a great problem.

But the task of providing lanes for the approaching fire apparatus should not be left to the men themselves. The police department is responsible for this task and it is their duty to see to it that ways for the approaching apparatus are kept clear. The delay consequent upon the traffic jam and the straightening out of the tangle, may mean the loss of lives and heavy damage to property.

While sometimes it is humanly impossible to prevent the mixing up of traffic in an almost inextricable jam, yet there are plenty of instances where this can be avoided by rigid enforcement of parking and other traffic rules.

Certainly it is not the place of the firemen to act in the capacity of policemen and it should not be necessary for them to do so.

Co-operation by Small Departments

The tendency toward fire departments of smaller cities and villages entering into agreements to cooperate with each other, where need arises for assistance from the outside is becoming more and more apparent. In two widely separated points within the past few weeks such agreements have been entered into. In one instance several departments in mid-Westchester County, New York State, one of the most populous centers of that commonwealth, have come together in a plan to help each other in a systematic way in case of need. Plans are being worked out in which the details of this cooperation will be arranged.

In the other case, several departments in Pennsylvania are arranging a similar scheme of cooperation, whereby the various companies will know exactly the amount of cooperation that they will be called upon to render in case of being called upon.

Such cooperation is a very encouraging sign of the times and of the modern progress toward coordination of efforts in fire-fighting in this country. Contrasted with the old haphazard method of assistance between cities and villages it is a big step in advance. By the former method—or lack of method—if a municipality had a severe fire on its hands that threatened to get beyond control or to assume the proportions of a conflagration, assistance was asked from any of the surrounding cities or towns, and it was left to the judgment of the chief of the department assisting as to what amount of assistance was to be rendered, the type and number of apparatus to be sent, the personnel of the assisting division, etc. Not being on the spot, this officer was as likely as not to err in this regard, or else he was compelled to waste precious time in telephoning back and forth for information as to the extent of the fire, the assistance needed, and other necessary details.

Under the new and more modern system, a running card is adopted which automatically regulates the type of assistance to be rendered by the visiting unit, similar to the inter-city running card of each department. This avoids all confusion, and also does away with unnecessary runs, taking the apparatus out of the city and leaving its own district shorthanded or improperly guarded in the meantime. When an alarm from outside sounds the chief and his department know just what is to be done and can get into operation with maximum efficiency.

Arson and Murder

One of the most cold-blooded cases of arson, combining fraud with a callous disregard for human life, occurred recently in a Connecticut city.

The principal in the case, who, by the way, received one of the longest sentences ever given an incendiary in the state was an art collector and connoisseur well known in his section.

In order to collect some $77,000 of insurance, this man conceived a brutal plot. With the avowed intention of decorating his home in the small Connecticut town, he employed a painter, and gave him instructions as to the work he wished done. With the man off guard, the owner then stunned him and forced a chloroform soaked rag into his mouth, and thereupon set fire to the already kerosene-drenched house.

The scheme in the criminal's mind was that the charred body of the painter should be mistaken for his and thus the large amount of insurance be collected through an intermediary. The plot might have succeeded, had not the victim retained enough consciouness to force the chloroform rag out of his mouth and to stagger out of an upper window of the burning building in a half-dazed condition. The revelation of the arson-

ist's fiendish plan followed, when the painter told of his experiences to the police.

The arsonist saved himself from a life sentence for burning a dwelling with intent to kill, which in Connecticut is mandatory, by pleading guilty to the charge of assault with intent to murder. He was given from seventeen to twenty-five years in prison.

This case well illustrates the extremes to which this type of criminal will go to gain his ends. The most heinous murder means little to him in the accomplishment of his purposes. Human life does not enter into his calculation at all, when weighed against the accomplishment of his plots.

That the severest penalty applicable should be visited upon such an individual cannot be argued. He is sane, when his attempt at murder is performed, for the crime is committed with a definite purpose. His mental processes work along reasoning lines. There is simply a blinding of the moral obligations by a sense of what may be gained by taking a criminal short cut to wealth. The heaviest punishment possible under the law should be given to this type of offender!

Fall River Thanks Nearby Cities

The Board of Aldermen of Fall River, Mass., passed a resolution of thanks for aid rendered at the big fire which swept six blocks near the centre of the city. Copies of the resolution were sent to the following municipalities which sent apparatus: Boston, Providence, New Bedford, Taunton, Newport, Brockton, Bristol, Warren, Attleboro, North Attleboro, Assonet, Swansea, Dighton, Dartmouth, Mansfield, Glen Farms, Somerset, Lakewood, Westport, Woonsocket, and the Newport Naval Training Station. The city will pay $2000 for the protection furnished by the state militia.

State Fire Marshal George C. Neal has made public the following report of Chief Inspector Timothy C. Murphy who investigated the cause of fire:

"An inquest was held by me at Police Headquarters, Fall River, on Tuesday, into the cause and circumstances of the fire of Feb. 2, which originated in a building formerly occupied by the Pocasset Manufacturing Company and attained the proportions of a conflagration which destroyed or badly damaged approximately 35 buildings.

"In consideration of the evidence received at the inquest I find that the fire originated in engine room No. 2, adjoining the westerly end of Mill No. 2 of the Pocasset Manufacturing Company. I find further that a steel drum of the standard 55-gallon capacity had been placed upon the wooden floor of the said engine room and had been used to contain a fire.

"This fire was originally maintained elsewhere to heat the air in the vicinity of acetylene gas apparatus used in cutting operations, but for at least a week prior to the conflagration had been placed in engine room No. 2 and used by workmen for the purpose of warmth.

"The fire was communicated from the drum to its surroundings shortly before 6:15 p. m. on Feb. 2. The second and general alarm was sounded at 6:34 p. m. closely following a first alarm from Box 1252 at 6:27 p. m."

Four Fall River firemen were injured, one seriously, when a piece of motor apparatus broke its steering gear and overturned while answering an alarm in the northern section of the city on the morning after the big fire.

Spokane Adopts Two Platoons

After a long drawn out fight of many years the Spokane Fire Department has finally joined the ranks of other cities by adopting the two-platoon system on February 2, 1928. C. A. Fleming, mayor of Spokane, and the city commissioners, made this change of their own volition after the people of the city had turned them down at the last election.

In the spring of 1914 the people of Spokane voted in the two-platoon system and after one year they voted the system out and from that date there has been more or less dissension in the fire department. Since that time the members of this department have exercised every medium of strength to have this system reinstated.

In the early spring of 1927 petitions were circulated by members of the department and more than 10,000 voters signed them. The measure was placed on the ballot, but it seems that the tax payers league of that city misunderstood the measure and through the medium of the press fought its adoption, setting forth what purported to be facts showing that the cost of operation would be greatly increased. This, they claimed, would reflect in a large degree in the make up of the taxes for the property owners.

This propaganda had its effect, as on March 8, election day, the measure lost by an overwhelming vote. Out of 27,000 votes cast there were only about 7,000 of them in favor of the change in fire department conditions. You will note that this is considerable less than the number of voters who previously registered their approval by signing petitions placing the measure on the ballot.

It is needless to say that this had a very decided effect on the morale of the fire department in general, as no other city of this size was working under the old twenty-four hour grind, and it was for this reason, I believe, that Mayor C. A. Fleming proposed to the council that the two-platoon system be instituted in the fire department. This was done on February 2, this year, with no increase in the man power of the department, and of course no additional expense was entailed therefrom.

The members of the Spokane fire department are in a much better frame of mind, and one who is familiar with conditions in that city would only have to spend a few moments in one of the company's quarters to see the effect that this change has made.

W. A. GROCE.

Chief Thurston of Honolulu Dead

Chief Charles Henry Thurston, head of the fire department at Honolulu, Territory of Hawaii, died at the Queen's Hospital, following a heart attack while playing golf, February 18.

The Late Chief Thurston at the Time of His Appointment

The chief and his son, Paul, had just completed one round of golf and were awaiting their turn to go around again. He complained of a pain in his heart and a few minutes later collapsed. His son and his chauffeur placed him in his car and rushed him to the hospital. He died at 3:30, shortly after being admitted.

Chief Thurston was regarded as a highly efficient man and was constantly seen at I. A. F. C. conventions.

The chief was born at Yarmouth, Nova Scotia, November 21, 1870. He gave up his school work at fourteen and went to sea. He crossed the Atlantic ocean several times and later came to Honolulu.

Shortly after his arrival in Honolulu, he joined the Inter-Island Steam Navigation Company as second officer on the "Mikahala." He left that company and joined the customs service. During the revolutionary period in Hawaii, he was a member of the Citizens' Guard and a member of the Provisional Government from 1893 to 1895.

He joined the fire department on January 1, 1897, as a hoseman. In 1901 he was made chief engineer and held that position until his death.

He was a Mason, Knight Templar, Shriner and member of the Knights of Pythias.

Milwaukee Orders Magirus Aerial Ladder—Milwaukee has just ordered a one hundred-foot Magirus aerial ladder equipped with side ladders and the necessary tools. It will carry about 240 feet of ladders, pike poles, life net, fire extinguishers, axes, brooms, sledges, door opener and other tools. The American Magirus Fire Appliance Company keep a complete set of parts in this country to service the American apparatus. A number of orders have been received from European cities.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Mail Trucks, Relief Valves, Etc.

To the Editor:

Will you kindly answer the following questions in an early issue of your journal.

1. Why do U. S. Mail trucks have the right of way over fire apparatus. Is the delivery of mail of more importance than the extinguishment of fire? It seems to me mail trucks could go one or two blocks out of their way and the time lost would not be noticeable.

2. Do you consider it necessary or of any benefit to use a relief valve on fire hose when the hydrant pressure is only 110 pounds? It is my contention that it is not. At a small fire the nozzle is in a shut off position about as much as it is open; there is therefore a large waste of water if a relief valve opens every time water is shut off. In freezing weather water discharged from the relief valve flows over the street and hose, and freezes. This makes the handling of hose difficult and the bending of frozen hose is injurious to the same.

3. What are the advantages of the Front End Drive Aerial Truck over the Tractor Drawn Aerial Truck, or visa versa? Both trucks are of same make and size. Would there be any noticeable difference in the speed of either truck and which truck would be the most convenient to operate?

Thanking you for an early reply, I am,

H. F. W.

Answer: 1. About the only reason assigned to the rights of U. S. Mail trucks over fire apparatus is that Federal rights naturally supersede city or state rights. The same theory holds in many other instances, such, for example, as where a bonded warehouse is interfering with the fighting of a fire. The municipal fire department can be prevented from entering such warehouses by armed Federal guards merely because the Federal authorities have full power to keep state or municipal authorities from entering their premises.

It is conceded that less harm will be done by having mail trucks deviate from their usual route to permit fire apparatus to have the right of way than would result if fire apparatus were delayed in order to let mail trucks go ahead. This point, however, has never been thoroughly discussed nor has any agreement been reached, apparently, with the government. The number of instances in which mail trucks have interfered with fire apparatus is indeed small. It is likely that an incident will occur some time or other which will emphasize the wisdom of giving municipal fire trucks the right of way and, following such an instance, agitation might be started which will result in a change in the present policy.

Answer 2. If your firemen are inexperienced it would be very good practice to have them use relief valves even where the pressure is only 110 pounds. Here is what might happen: Men might be operating on a short line of hose with a shut-off nozzle and suddenly snap it shut. The sudden arresting of the flow of water will cause water hammer which in many cases is sufficient to burst the hose or blow off couplings. On the other hand, if the men know their business and fully appreciate the necessity, even under the periods of greatest stress, of shutting off the water slowly with shut-off nozzles, then there would be no need of putting the relief valve on the line. It is entirely a question of how well the men are trained and what the chances are of them improperly operating shut-off nozzles when pressure of 110 pounds is provided at the hydrant.

At a test a few years ago in an eastern fire college, a pressure of 90 pounds was available at the source of supply. A gauge was attached at this source and when the shut-off nozzle was quickly closed the pressure jumped to over 200 pounds on the gauge. While this increase in pressure was only instantaneous, it would have been sufficient to burst the hose had not the hose been in good shape.

With regard to the third question, you are referred to manufacturers of apparatus who are better familiar with the merits of these different types of drive for fire apparatus. They have their reasons for manufacturing the different types and can best give them to you.

Spontaneous Ignition from Petroleum

To the Editor:

In the "False and True Statements" on page 63 of your January 25th issue, statement No. 13 reads: "Rags or waste saturated with petroleum oils such as kerosene, gasoline and naphtha are not subject to spontaneous ignition," and to which your answer is "true."

This has raised quite a controversy in our department and I have been delegated to write you regarding the correctness of this answer.

We have always been schooled and drilled to be on the lookout for oily rags, etc., in garage and machine shops and would appreciate your reply to the above.

A. K. S.

Answer. The statement that rags or waste saturated with petroleum oil are not subject to spontaneous ignition is correct.

It is the vegetable oil which causes the trouble in this respect. Petroleum oils are not subject to spontaneous ignition.

On the other hand, vegetable oil such as linseed oil, rape oil and others, are very susceptible to this chemical action.

Were petroleum oil subject to spontaneous ignition, you would find far more garage fires than are experienced at the present time. Rarely can such fires be traced to oily rags as their source, and when such is the case, it is usually machine oils with vegetable content that cause the trouble.

On the other hand, in linoleum factories where linseed oil is employed, spontaneously originating fires are very common.

Selecting Fire Hose

To the Editor:

I will appreciate very much if you can furnish me with information on the following:

1. Specifications for and methods of purchasing of fire hose, employed by cities handling the purchase of fire hose on a scientific basis.

M. W. W.

Answer: The question you ask is certainly a controversial one.

Unfortunately, specification hose has received a bad name in many of the larger of our American fire departments with a result that the greater proportion of hose now sold is of old standard brands rather than "specification" hose.

Here is the situation: The insurance laboratories established specifications for the manufacture of fire department hose. These specifications they considered as the minimum for hose designed to give cities satisfactory service. You will appreciate that the manufacturer who can build his hose the cheapest and get just within the specifications is the one who is going to get the business. This has been proven without question time and again, for concerns of poor repute in the rubber field have secured large orders for fire hose. In most cases these concerns make no attempt to secure repeat orders but are satisfied to take any orders they can get on the basis of price competition. They are not organized to build fire hose, they have not the personnel experienced in this line, for fire hose manufacturing is just a side line to them.

On the other hand the old established manufacturers of fire

hose pay little attention to specification hose but depend upon the sale of their own standard brands—proven in some cases by 30 years of continuous service—to carry their organizations along. And it is not a surprising thing, therefor, that these old manufacturers who are specialists in hose manufacturing should be getting the greater part of the business.

They are fire hose manufacturers only and have men in their employ who are thoroughly acquainted with the requirements of fire department hose.

We say without fear of contradiction that the best grades of hose manufactured in this country are not specification hose but are the old standard brands of hose put out by those concerns who have been building fire hose only for well on to a half-century. Repeated tests have shown the tremendous superiority of the old standard brands over the so-called "specification" hose. Fire hose is like a lot of other things that require skill in building—you have got to forget price if you want to get service and quality built into the article.

Use of Salvage Covers

To the Editor:

Will you please explain the way to use salvage covers to the best advantage when you have no salvage corps and have to use the regular fire fighting force for that purpose?

S. V. C.

Answer. The usual method of spreading salvage covers at fires where only the regular fire fighting force is available is to assign members of truck companies to spread the covers. A department operating at a fire always has plenty of spare men on hand except when the fire is getting away or has reached great proportions. In this latter case, however, it is too late to think of doing salvage work and all the force can best be employed in holding the fire from spreading.

Salvage work is effective when the fire has not reached such proportions as to endanger men working within the building or has not reached such intensity as to damage materials by heat.

At fires, where the entire force is not required for fire fighting operation, salvage work can be effectively done. It is recognized now in fire fighting circles that spreading of covers to save materials from water thrown by the fire department is fire department work and many fire companies throughout the country are carrying salvage covers on their ladder trucks.

The usual method of operation at a fire is for the department to spread covers just as soon as men can be spared. Covers should be spread over goods likely to be damaged by water. It is frequently necessary to move materials away from walls so that the covers can drape all around and thereby shed water to the floor.

Frequently in stores and other places where shelves are attached firmly to the wall, goods are taken from these shelves and placed on tables or counters in the center of the floor and then covered.

Following the spreading of covers, so as to protect the maximum amount of goods, attention must be directed to drainage of the building so that water will not reach materials below but instead pass down through openings where the least damage will be done. It is frequently necessary to make improvised dams to divert water down stairways, shafts, or other vertical passageways so that it will reach the street without damaging the goods enroute.

In general, the spreading of salvage covers and salvage work should be assigned to members of truck company. It should be done only after these men are freed to perform salvage work and should not be attempted when their help is needed in operating on the fire itself.

Static Pressure

To the Editor:

An argument has arisen at the station when the lieutenant asked a question, the men being about evenly divided as to the answer. The question is: If a working line of hose taken off a pumper, with an engine pressure of 100 pounds, and with an elevation of 100 feet at the nozzle, was to be shut down, would the static pressure then be 100 pounds at the nozzle. Some said it would be minus the head, or plus the head if down 100 feet, and some say it would make no difference as long as the water was at rest, the pressure would be the same at the engine and nozzle.

We will appreciate very much if you will explain this for us.

J. H. B.

Answer. If an engine is pumping at 100 pounds pressure through a line of hose stretched up to an elevation of 100 feet and the engine is shut off, the pressure at the engine will then be 43.4 pounds static. In other words, the pressure at the engine will be that due to the head of water in the line of hose supplying nozzle. As the nozzle is 100 feet above the engine, the head of water above the engine will also be 100 feet. Each foot of elevation represents .434 pounds and 100 feet would then give 43.4 pounds pressure against the engine.

In this case the pressure at the nozzle would be zero, where there is no flow.

On the other hand, suppose the nozzle should be shut off and the engine pressure maintained at 100 pounds by operation of churn valve. In this case the back pressure would still remain at 43.4 pounds and the nozzle pressure would be 100—43.4 or 56.6 pounds.

If the line were laid horizontally and the nozzle was shut off then the nozzle pressure and engine pressure would be the same but as soon as the nozzle is opened up, then we have a different story. But if the nozzle is at an elevation higher than the engine, the pressure at the engine will be greater than at the nozzle.

Chief J. W. Weaver Resigns

Chief J. W. Weaver, head of Nashville, Tenn., department retired from the service on March 1.

He was born in Tennessee and, while still a young man, moved to Nashville. This was in 1883. He was a carpenter by trade and followed that vocation until 1894 when he received his appointment to the fire department. Weaver served as pipeman and ladderman until August, 1897. At that time he was promoted to lieutenant. He served in that office until 1898 when he was advanced to the post of captain. Mr. Weaver was captain for five years and on August 28, 1903, he was made assistant chief. He was made head of the department on August 2, 1920, and succeeded the late chief, Antonio A. Rozetta, who died on July 22, 1920.

Ex-Chief J. W. Weaver

Two Fires at Once

Two fires occurring at the same time, and two other fires that were reported within a twenty-four-hour period, kept Chief Eugene T. Ricker of Biddeford, Me., busy and made it necessary to ask aid from the adjoining town of Saco.

Freezing temperature, strong winds and a disabled fire alarm whistle added to the difficulties of the fire fighters.

The largest of the four fires occurred at 6 p. m. Sunday in a three-story tenement and business block on Washington street owned by the Pepperell Trust Company. It was occupied by a pool room and printing plant on the ground floor and tenements on the second and third floors. As the flames gained headway, a second alarm was sounded. Several children were rescued from upper floors. Nearby roofs were wet down as flames threatened to spread to a hotel, garage and nearby property. Several firemen were overcome by smoke.

At another fire, the bell rang upon turning in an alarm but the whistle did not operate. Chief Ricker responded to the fire and turned in a second alarm. Under the mutual aid system, assistance would be available from Saco. Chief John Pendleton of Saco sent a motor pumper and a chemical truck.

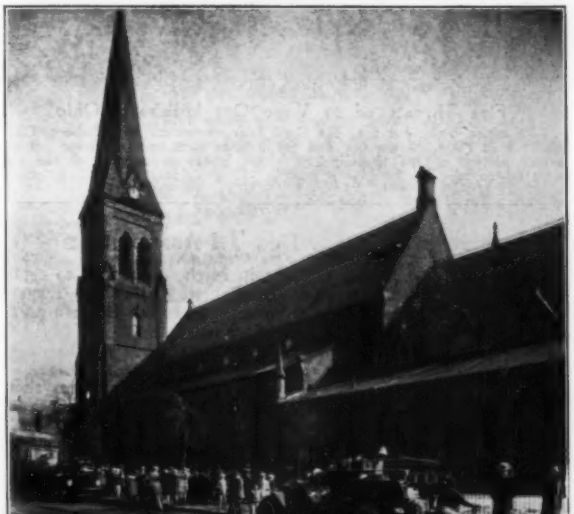
The total damage from all four fires was estimated at $50,000. The department, following these incidents, has renewed its efforts to secure another pumper.

SOUTH CHURCH IN NEW BRITAIN, CONN., SUFFERS $105,000 DAMAGE

Mammouth Pipe Organ Recently Repaired Damaged—Origin of Fire Undertermined—Chief William Noble Injures Knee in Debris

FIRE of undetermined origin caused damage estimated at $105,000 in the South Church, New Britain, Conn., and injured two men.

The building superintendent was making an inspection to see if everything was all right for Sunday services, the following day. He heard a roar. Rushing to the front part, he found



Courtesy, New Britain Herald

Firemen Have Three-Hour Morning Fight at Church Fire

Exterior of the damaged church. Fire crept along under the slate roof of this building, erected in 1866, and was difficult to reach.

the structure filled with smoke. Soon the organ loft became a roaring furnace. Flames later swept beyond the pulpit and did damage to the auditorium. Lumber, wooden partitions and feather beds stored in the basement, gave forth vast clouds of smoke.

The organ loft was four stories high with a motor room in the basement. It ended in a blind attic under the roof. The organ consisted of about four thousand pipes constructed mostly of kiln dried wood. Once the blaze started, the organ burned like so much paper.

An alarm was turned in from a box in front of the church. Engine companies 1, 2, 3 and 6 and truck companies 1 and 2 responded in command of Chief William J. Noble and Deputy Chiefs Eugene F. Barnes and Michael T. Souney. The latter arrived first and immediately turned in a general alarm that called out Engine Companies 4 and 7. Company 5 was ordered back to headquarters to protect the business section.

Smoke and smouldering woodwork in almost inaccessible places made the work extremely difficult for the firemen. Seventy-foot extension ladders were placed inside the church against the high ceiling. The water soaked plaster walls made it extremely unsafe for the department. Fire was fought from the Arch street side, from a yard on the east side and from the interior. To better fight the fire that was crawling across the ceiling, holes were cut through. One hose stream sent slates from the roof flying to the ground and endangered the safety of those below.

Glass chandeliers attached to the ceiling and side walls were made unsafe. Chief Noble painfully injured his knee when he accidentally struck it against the corner of a pew. One fireman was overcome by smoke and gas while working on the roof. He was placed in a special harness and lowered to the street and later removed to the New Britain General Hospital. Another fireman was injured.

The church was centrally located. A police squad was assigned to keep traffic moving.

The building was erected in 1866 and at that time an organ was presented. Since then many additions have been made to the organ, and it had just been repaired prior to the fire outbreak. Only one public concert was given on the instrument after the repairs were made, and it is therefore a great blow to the church members.

A motion picture machine and several reels of film were saved. Shows were held at the church each Sunday evening.

Sunday school classes were held as usual the morning after the fire. Police were assigned to keep the public from dangerous parts of the church as there was the constant hazard of plaster falling from the water soaked walls and ceiling. Boy Scouts in uniform assisted police in this patrol duty. They even guarded doorways leading into the damaged sections.

Although firemen tried to save expensive stained glass windows, later inspection discovered that many windows were cracked from the heat. The lead did not melt. It is believed that most of the windows can be salvaged.

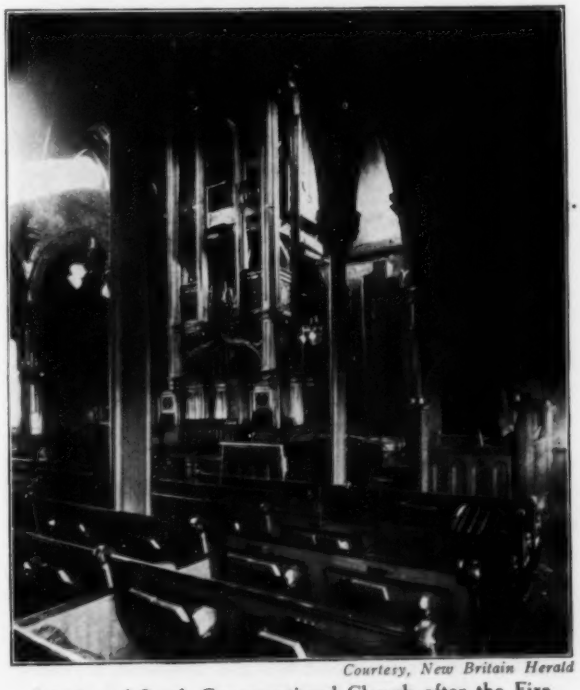
The entire building was insured for $200,000 but the organ that suffered the greatest part of the damage, was only insured for $30,000, although it was valued at $80,000.

WHAT'S BURNING

THE following list includes fires of $25,000 loss and over in the United States and Canada, for the periods designated in the headings. These figures, compiled from telegraphic reports, are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousands.

Week Ending February 24

ST. PAUL, MINN.—Minnesota Sporting Goods Co.	40
FORT WORTH, TEX.—Lake Worth pleasure boat destroyed.	30
VICKSBURG, MICH.—Business blocks damaged.	30
MONONGAHELA CITY, PA.—Second Street business property.	25
McPHERSON, KANS.—Business block damaged.	80
TORONTO, ONT.—Reading Bldg., Spadina Ave., damaged.	125
NASHVILLE, TENN.—Retail store of Sears, Roebuck & Co.	80
MILAN, IND.—Milan Mineral Spring Hotel destroyed.	325
AHTANUM, WASH.—Big G warehouse destroyed.	30
BRONX, N. Y.—Apt. bldg. at Jerome and Anderson Aves.	400
PITTSTON, PA.—Sheridan Silk Mill damaged.	40
TOLEDO, OHIO.—Nugent Furniture Co. store.	80
COVENTRY CENTRE, R. I.—Mill of R. I. Processing Co.	200
KELSEYVILLE, CAL.—Business section damaged.	25
SPRINGFIELD, MASS.—Plant of Hinsdale, Smith & Co.	50
WORCESTER, MASS.—Bay State Hotel, Main St.	50
CANTON, OHIO.—Garage of Ohio Builders & Milling Co.	60
CHICAGO, ILL.—Factory bldg., 3949 W. Van Buren St.	300



Courtesy, New Britain Herald

Interior of South Congregational Church after the Fire

SPRAGUE, NEB.—Bachman and Wellage stores destroyed.... 25
ST. LOUIS, MO.—Plant of Switzers Yellow Jacket Co..... 300
FREEPORT, ILL.—Business establishments damaged..... 800
LEOMINSTER, MASS.—Bldg. housing Webber Co..... 40
ST. LOUIS, MO.—Elevator, Marshall Hall Grain Corp..... 160
VINCENNES, IND.—J. C. Penny store and adj. property..... 100
JAMAICA, L. I., N. Y.—T. J. Adikes warehouse destroyed... 65
McKINNEY, TEX.—Waddill bldg. destroyed..... 65
CLEVELAND, OHIO.—Seymour Furniture Co. & adj. property. 400
FOREST CITY, PA.—Store and restaurant destroyed..... 40
BALTIMORE, MD.—Carlin Park Pavilion destroyed..... 80
ARKADELPHIA, ARK.—Dormitory of Henderson-Brown College 30
LOS ANGELES, CAL.—Burton & Wade Rubber Co. damaged.. 25
DETROIT, MICH.—Germania Hall and adj. property..... 65
HOBOKEN, N. J.—Curt Runge's bakeshop, Hudson St..... 25
BRADFORD, PA.—Fourth Ward School bldg..... 40
PHILADELPHIA, PA.—Equitable Lighting Equip. & Sup. Co. 40
SHEFFIELD, IA.—Four business establishments destroyed.... 30
OLCOTT BEACH, N. Y.—Castle Theatre destroyed..... 25
FOLGSTON, GA.—Charlton County Court House bldg..... 40
SPRING CITY, TENN.—Spring City High School bldg..... 40

Week Ending March 2

LOGANSPORT, IND.—Meat market and Red Cross Drug Store. 40
LAPORTE, IND.—Plant of Metal Door & Trim Co..... 100
MAXTON, N. C.—Austin Drug store and adj. property..... 65
CHARLOTTE, N. C.—Plant of Savona Mfg. Co. damaged..... 30
OSWEGO, N. Y.—St. John's Parish School damaged..... 60
GRAND RAPIDS, MICH.—Hartman Tankage Works, Comstock Pk. 40
SPRINGFIELD, ILL.—Wiedlocher & Sons' elevator..... 80
CAMDEN, N. J.—Allied Metal Stamping Co. and adj. property. 175
PATERSON, N. J.—Bldg. at 21 Hamilton St. damaged..... 25
SHELBY, N. C.—Commercial Hotel bldg. destroyed..... 250
SHARON, PA.—Shenango Hotel and business block..... 400
WILMINGTON, DEL.—Plant of Newport Sash & Frame Co.... 25
LEBANON, MO.—Lyric Theatre and Booth store destroyed.... 65
OLYPHANT, PA.—M. Raker bldg., Lackawanna Ave..... 80
RACINE, WISC.—Bldg. of Racine Screw Co..... 165
LOCKPORT, N. Y.—Hodge Block damaged..... 250
TOLEDO, OHIO.—Plant of Sun Oil Company damaged..... 200
NEW ORLEANS, LA.—Monroe Paint Co., Inc., Carondelet St.. 25
GEORGETOWN, S. C.—Plant of South Atlantic Lumber Co... 30
GALVESTON, TEX.—Royal Hotel damaged..... 25

(*Continued on page 204*)

Wall Paper Makes Intense Fire

Fifty carloads of wall paper stored in a joisted brick building for the spring trade, developed into a hot fire that gave the Cleveland, Ohio, fire department plenty to do.

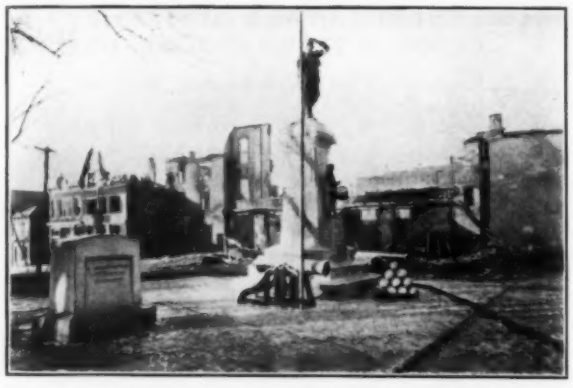
Flames were discovered at noon in the sample room on the fourth floor. Seventy men and women were employed there but most of them were out during the luncheon hour. The blaze was discovered by an elevator operator who shouted a warning to the occupants of the various floors. Many were attracted by the sudden red glare and hundreds of stenographers risked damage to fur coats in order to get a closer view of the fire.

About 4 p. m. Chief Wallace noticed that the walls were

Three-Alarm Wall Paper Fire in Cleveland

starting to bulge. He warned all men to get back to a safe distance. Shortly after the warning the walls collapsed.

All downtown fire apparatus and some companies from the West side were used to fight the fire, in addition to two fire tugs. Firemen were directed by Chief Wallace and First Assistant Chief James E. Granger.



Fire Threatened to Wipe Out Hillsboro, Ohio

Fire which broke out near the Civil War monument in Hillsboro, Ohio, resulted in $500,000 damage and for a time threatened to wipe out the major portion of the municipality. Two blocks or squares of the city were destroyed.

Fire Staged for Box 12 Association

The Box 12 Associates of Detroit, Mich., responded to signal 3-3—12—9217 on Friday evening, February 17th, at Iriquois and St. Paul, where stands the home of Standish Backus, president of the Burroughs Adding Machine Co., one of Detroit's ardent fire fans. The Box 12 members held the February meeting there and witnessed 4,000 feet of motion pictures of fires in New York and Detroit. The Detroit reels were "shot" by Paxton Mendelssohn, Chief of Box 12, and the New York films were made by Dr. E. G. Stillman.

Mr. Backus gave the Box Twelvers a real treat—he staged a fire in his home by reenacting a two-alarm blaze which occurred a couple of years ago in the quarters of Engine Co. 26, D. F. D., while the house was undergoing renovation and the company was temporarily quartered elsewhere. No one knew of the treat. When the business meeting ended, and the writer on a visit from New York, had concluded his narrative of some of the lighter sides of life in and around the New York Fire Department, Mr. Backus showed his guests, in a darkened dining room, an illuminated model of Engine 26. It was correct to the minutest detail, mounted in sand on an enormous silver platter. Suddenly the hose tower burst into flames. But only the hose tower was inflammable—the rest of the model was made of metal. The fire fans were at first alarmed, but the host's smiles allayed all fear.

It was then revealed that the "hose" hanging in the tower was in reality strips of film tied to black thread, the other end of which was held in the pocket of Mr. Backus. At the proper moment he pulled the thread, drawing the ends of the "hose" to the candle which illuminated the interior of the engine house, and the other incident followed quickly.

The Box 12 members discussed tentative plans for cooperating with the Detroit Board of Commerce to solve automobile parking problem in the theatrical district.

Others in attendance were Fire Commissioner Murphy, Chief Stephen J. De May, Paxton Mendelssohn, J. Bell Moran, whose late father was a former Commissioner of the Detroit fire department, George Morley, former Fire Commissioner Chittenden, and Harry Shearer, secretary of the club.

W. J. DALY.

Willson Manager of Door Opener Co.

Announcement has been made by Ernst G. Appleton, president of the Automatic Power Door Manufacturing Company, Chicago, of the appointment of John N. Willson as general manager in complete charge of sales and operations to take the place of W. E. Allen, Jr., who resigned.

M. E. Krause, well known in fire department circles, as well as Messrs. Anderson, Lindahl and Secord will continue as authorized sales representatives.

Humbolt, Ia., to Have Fire Limits—An ordinance has been drawn to establish fire limits in Humbolt, Ia.

Wellsville, N. Y., Expects New Pumper—Delivery of a new pumper is expected within a month in Wellsville, N. Y., from the Buffalo Fire Appliance Company.

SPITE FIRE STARTED 43 YEARS AGO, STILL BURNING IN OHIO

Millions of Dollars Have Been Spent Trying to Check Fire That Is Destroying Rich Coal Vein—Flames Often Rise Fifty Feet Above Ground

WITH no other motive other than to get revenge for the importation of southern labor in a coal strike forty-three years ago, striking miners set fire to the old Plumber Mine in Perry County, Ohio, between Shawnee and New Straitsville along with seven other large mines. Today the fire is still burning and there are about 50,000 acres of valuable coal lands involved.

It seems inconceivable that so great a catastrophe could occur within the bounds of the United States without attracting wide attention. But the explanation is simple. It has so slowly and steadily progressed that it has become commonplace to the people who live near it. It is not even a topic of conversation, except when a geyser of fire breaks out near a cabin, forcing the occupants to hunt a new home. But such minor tragedies are too common to attract much attention in this land of tragedy.

And so, while sabotage has been thus dramatized on a tremendous scale for forty-three years in the Ohio hills the public at large has known little or nothing of it. There are not many visitors in the great fire regions, and today few outside of the immediate vicinity know that a great fire is burning under sixty-four square miles, fast consuming what is left of Ohio's finest coal deposit.

"Can't the fire be checked?" The layman who learns of the catastrophe always asks. The answer is an emphatic no. Several private fortunes and much public money have been spent in attempts to put out the fire and not the slightest impression has been made on it. The coal is of such rich quality and lies so near the surface that it has been impossible to halt the flames.

In one of the early efforts water was pumped underground for three years, but this only seemed to make the fire burn more fiercely. As the coal lies high in the slopes rather than deep in the ground, the water either runs off or turns to steam, with the result that large craters are blown in the hillsides.

The usual method of fighting mine fire is to shut of the air and thus smother the flames. Here, however, when the thick vein of coal burns out the earth above it caves in. This opens deep fissures in the earth, through which the fire gets a new air supply. In rainy weather water runs through these earth cracks and the steam, forcing its way out, shoots the flames sometimes fifty feet into the air.

The coal in this Hocking Valley district averages about 1,700 tons a foot of thickness per acre. The average thickness of the vein is ten feet. To date, sixty-four square miles, or 40,960 acres, have been destroyed. On this basis, 693,320,000 tons of coal have been sacrificed.

The loss has climbed from millions of dollars into billions. And that is but the beginning of the story.

On the highway between Shawnee and New Straitsville at intervals along the brick paved road are sign boards warning that cave-ins may occur at any moment—and they do. Here and there a patch in the paving mutely tells where a cave-in caused the roadway to drop as much as ten or fifteen feet.

In the heart of this fire country dozens of men are opening up new passages to their small mines because the place worked the day before had become a seething furnace. These miners are playing a game with fate that makes ordinary mining seem like child's play by comparison.

On the hillsides rise geysers of steaming water. Great, red-hot fissures open in the earth through the blackened ruin of what was once a verdant forest. Through the valley runs a stream, from which, even in below zero weather, there rises a blanket of steam. Above the valley hangs a pall of white smoke, pierced here and there by the white tips of the tallest trees and the crests of the highest hills.

Everywhere there are acres of land burned a brick red from the terrific heat beneath. Such land usually shows no vegetation, except perhaps for an occasional bush. In other spots, more gently warmed, Spring flowers may be seen blooming in the coldest Winter weather.

There are old forests where the roots have been charred beneath trees that have tumbled over, dead, in utter confusion. One may see the site of an old schoolhouse that fell into a flaming chasm; near it a group of abandoned houses that was once Old Straitsville.

And there is another element as dangerous as the fire itself—"black damp," it is called—a deadly gas generated by the heated coal. Cattle, wandering into the mouth of a cooled crater, may later be found dead, overcome by this gas.

About twenty-five years ago two brothers named Jones bought coal land that had not yet been touched by the fire and set about the task of trying to save it. They tried every available method, but the fire only burned the more fiercely. They sank shafts and tried building double brick walls in the path of the fire, filling the space between with soot. The heat sometimes was so intense that bricklayers had to run to the wall, place one brick and then run back again.

When this costly wall was finished it looked as if the fire had at last been checked. Miners were called in and preparations were under way to start work immediately. Next morning, however, found the whole place on fire. Several huge holes had been blown in the ground, and from them fire and smoke were shooting. That is but one of the many attempts in which millions of dollars have been spent.

Chief Denger Incapacitated

One accustomed to visiting fire headquarters in Davenport, Ia., soon realizes that something is missing. The smile, friendly greetings and witty remarks of Chief Peter Denger are absent and it is uncertain when he will be able to again assume his old duties.

Chief Peter Denger

On October 22, he and a delegation from Davenport attended the funeral of late Chief James Kennedy of Cedar Rapids. At that time he appeared to be very active. On November 2, it was necessary to take Chief Denger home as he had a very severe attack of rheumatism. He preferred to remain with his family and refused to be taken to the hospital.

Christmas eve, as the chief was lying in bed, he detected the odor of smoke. The fire department was called and they were directed by the chief in their work. About $2,500 damage was done to Chief Denger's beautiful home. It was then necessary to remove him to the hospital while workmen repaired the damage.

Chief and Mrs. Denger have not missed a convention of the International Association of Fire Chiefs since Mr. Denger became chief. His friends are hoping that he will be well enough to attend the coming gathering in Philadelphia.

He joined the department on May 8, 1889 and worked his way up through the ranks. Chief Denger was made head of the department on May 1, 1910 and has served as chief for eighteen consecutive years.

New Door Opener Placed at Hempstead

A new type quick-acting door has been installed in a Hempstead, L. I., fire station.

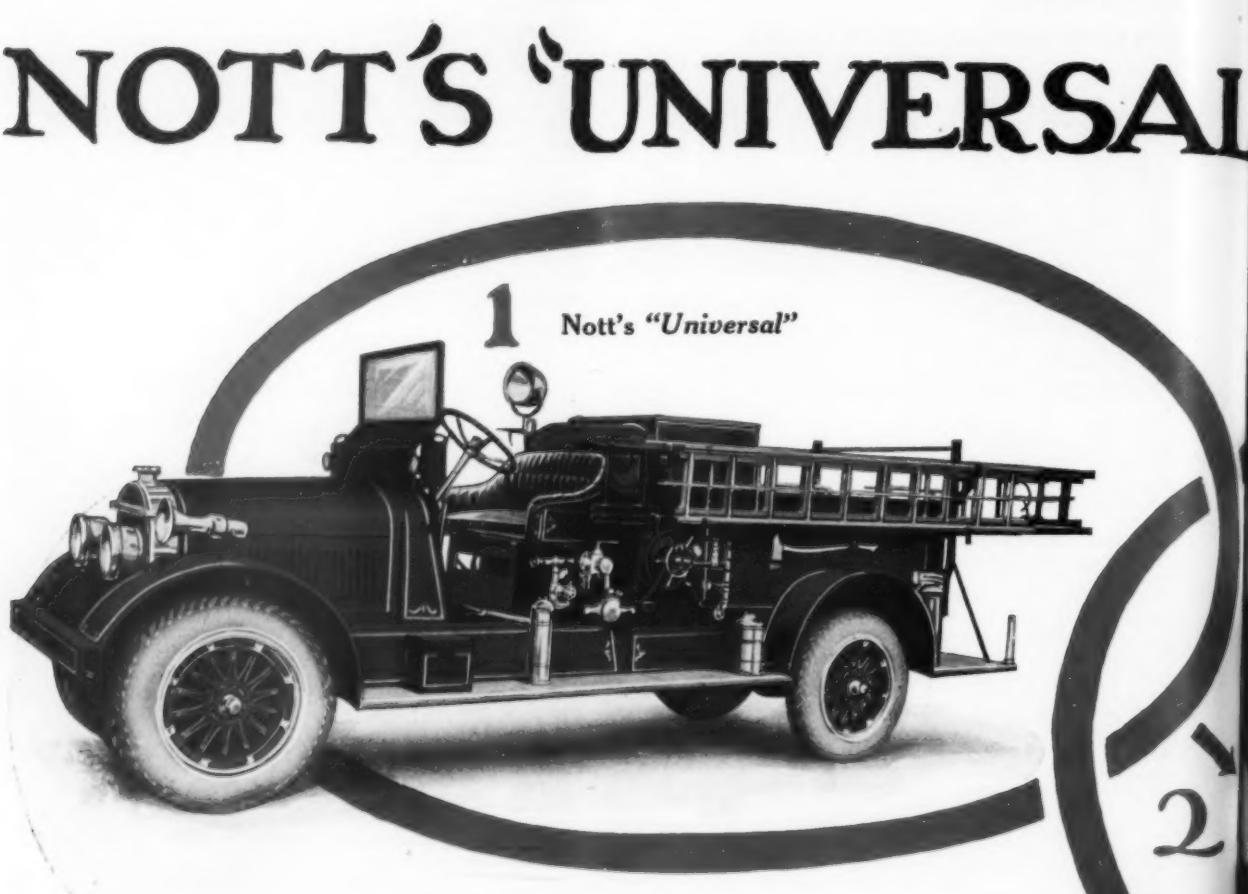
The door operates in two units of two doors each and works by an electric motor. But five seconds are required to clear the entire opening—operation is noiseless and free from jar as the doors swing to the full open position.

As soon as a fire alarm is received, the man in charge of the station throws a switch which starts the motor. The doors are open wide before the fire apparatus motor can be started.

The doors of the Hempstead station are painted cream with a black trim. This makes a pleasing color combination. The doors were manufactured and installed by the Truscon Steel Company, Youngstown, Ohio.

Date Set for Pennsylvania Firemen Convention—The Board of Control of the Central Pennsylvania Volunteer Firemen's Association met at Clearfield and discussed the coming convention to be held in Clearfield on August 1 and 2.

NOTT'S "UNIVERSAL



As Always—

The W. S. Nott Company, quick to recognize any new, up-to-date appliance to improve the efficiency of the "*Universal*" for all kinds of fire, have arranged with the American Fomon Company to use the continuous Fomon Generator, using Fomon Chemicals.

The "Universal" is steadily forging to the front and is classed as one of the leaders in Fire Department Apparatus.

W. S. NOTT COMPANY

201 North 3rd St.

MINNEAPOLIS, MINN.

Sound Since 1879

land FOMON ---

Again FOMON supplies the link between apparatus and the oil or other flammable liquid conflagration.

Because of the FOMON high degree of protection and the FOMON principle of non-deteriorating chemicals, fire apparatus manufacturers are recognizing in FOMON the needed link between their equipment and this all important phase of fire protection.

FOMON has gained widespread recognition among fire fighters and those interested in fire fighting as the practical application of foam in an effective and economical manner.

By employing ***two*** chemicals, ingeniously packaged for easy pouring, FOMON separates the active elements and avoids all need for inserting inert "filler" material to reduce the quality of the foam. And so separated FOMON ***cannot*** deteriorate!

AMERICAN FOMON COMPANY

"Fomon — Fire Out"

Drexel Building **Philadelphia, Pa.**

CHICAGO—BOSTON—LOS ANGELES—SAN FRANCISCO—DENVER—TULSA—HOUSTON
Representatives in other large cities

The Generator
Portable, light easily handled

3 The Fire!

FOMON in action

The FOMON Fire Department Extinguisher carried on apparatus as additional equipment.

d Extinguisher

Latest in Fire Patrol Headquarters

(*Continued from page* 186)

weather large skylights can be raised and windows and doors opened to allow natural drying.

Facilities for Repair of Apparatus

This room contains a pit for the inspection, repair and cleaning of auto equipment. (See Fig. 8.) The pit proper is an elevator of the sidewalk lift type manually operated. It can be lowered or raised to any height, and when not in use the platform is placed level with the floor.

The three front double doors are equipped with electric door openers and closers operated from the signal room. All pole holes are equipped with aluminum covers, which open with a man passing through and close automatically with ordinary door checks. (Fig 2.)

The heating plant is equipped with an oil burner, all oil storage installed underground. The mess room and kitchen (Fig 3), has ample cooking utensils and equipment to provide meals for twenty men. Two meals are prepared each day for the platoon on duty.

When Patrol No. 7's quarters were recently changed the Chicago Patrols lost their only Hand Ball Court. For this reason, and on account of the central location of the new station, it was decided to incorporate a Court in this building.

Hand Ball has been the favorite exercise in the Chicago Fire Department and the Patrol for many years, and has been encouraged as a means of keeping the men physically fit.

Fig. 3 (Upper), Mess Room, and Fig. 4 (Lower), Dormitory, of the New Chicago Fire Patrol Headquarters

The new Court is 24 x 52 feet and has a spectator's gallery which will seat one hundred. The floor of the court is level with the basement floor and the walls extend to the second floor level, giving a ceiling height of

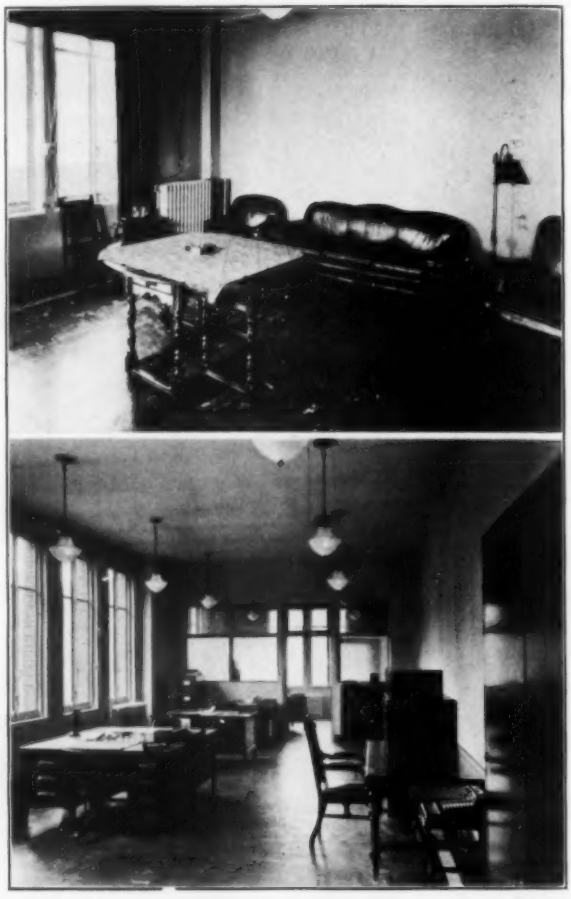


Fig. 5 (Upper), Reception Room, and Fig. 6 (Lower), Offices and Chief's Office, Chicago Fire Patrol's New Headquarters

25 feet. Showers and dressing rooms are provided under the balcony. The new Court has already been the scene of many friendly battles between the police, firemen and patrolmen.

The Chicago Board of Underwriters believe that they have built a model fire station and will welcome inspection by officials who contemplate erecting similar structures.

Asst. Chief Short of Atlanta, Ga., Dead

Tacitus Short, assistant chief of Atlanta, Ga., died suddenly on February 22 following a heart attack that came on while fighting a fire. He was fifty-six years of age.

Apparently Chief Short was in good health. A call came in at 2:01 a. m. A few minutes after he had arrived at the fire, he complained of pains believed due to indigestion. He collapsed and was rushed to the Grady hospital in his own car. He died a few minutes after he had reached the hospital.

Chief Short joined the department on March 13, 1899, as a substitute fireman and became a regular fireman on January 1, 1908. On August 1, 1914, he was made captain and in 1919 he was advanced to assistant chief. He was in charge of the South Side district.

Funeral services were held at his old home in Washington, Ga.

JOHN A. STULB.

OF INTEREST TO VOLUNTEER FIRE DEPARTMENTS

TOURNAMENTS AID IN BUILDING VOLUNTEER FIRE DEPARTMENTS

Organized Competitions Make It Necessary for Firemen to Become Acquainted With Tools—Community Cannot Control Firemen's Time

By A. V. SAMMIS*

FIREMEN'S tournaments afford a practical application of real firemanic problems. The contests generally consist of hose races, both foot and motor, hook and ladder races, also both foot and motor, and contests using motor pumpers of various sizes and capacities.

In Nassau and Suffolk Counties, firemen's tournaments have been held for many years and this district is what might be termed the "hotbed" of firemen's contests. The committees who have stood behind these games have given much time and thought in order that all of the contests might be brought into as near a practical standard as possible eliminating to a large extent those contests which would not be considered in regular fire service.

The results of these activities have been far-reaching in their effect on the fire departments themselves and in the benefits gained by the various communities, to say nothing of the fire insurance companies.

From a fire department standpoint, the association of the fire companies in friendly rivalry has brought about a better feeling, and the interest in firemanic affairs has become much keener not only locally but throughout the state. These tournaments have been the means of building up fire departments by bringing into them young men who have become real assets to the various companies and to the communities in which they live. They like the spirit of the thing and when the young men once are interested, almost anything can be accomplished.

The tournaments of Nassau and Suffolk have become so large in attendance that it is almost impossible to complete the program in one day. One single contest has as many as seventy entries. This means that fire companies must give a considerable amount of time for two or three months in the year to keen, live practice in order to become efficient. This practice in handling tools fits them for more serious work.

Another result in the interest the fire departments take in tournaments is the growing demand for better tools and better equipment. How much this means to the community in better fire protection is perhaps best illustrated by the fact that the territory of Nassau and Suffolk counties is so well covered that if a comparison with other territories were possible, these two counties would be found to own and operate more and better equipment than almost any other similar territory in the United States.

Inevitably, the tax-payers and residents can not help but to benefit from such a development. The fire department or company in any community equipped with the most modern fire-fighting apparatus is a tremendous asset to the community while the very fact that there has been a desire on the part of the firemen for apparatus is self-evident that the personnel is of the better sort.

*Abstract of paper read at convention of New York State Firemen's Association.

There is, of course, in any department what we might term as "deadwood" and there always will be. However, comparing the volunteer fire department with other organizations, it will be found, without question, that the personnel of the volunteer fire department is above the average and that the spirit of the volunteer is a factor for safety. The value of this is inestimable in that it gives the residents that sense of security which permits them to turn over on their pillows and go to sleep knowing full well that the interests of the community are taken care of should a fire alarm sound.

Recently there has been rumors to the effect that the insurance companies throughout the state and outside as well, have offered some objection to municipalities whose apparatus was permitted to be taken out of the district on days when firemen's tournaments were held. The claim was made that such communities were left without protection.

A community has no claim at any time upon the personnel of a volunteer fire department. All the apparatus in the world would not be of any value were no men at home to operate it. Furthermore, whenever apparatus has been taken out of the community, it has almost invariably been replaced by something which would answer the purpose for a short time as an alternative. How well this arrangement has worked out may best be judged by the fact that in our own territory we have yet to know of a serious loss brought about through shortage of equipment or man power on account of firemen's tournaments.

In developing such contests one must not forget the spirit of the volunteer firemen is the same everywhere, and that the stronger the competition, the better the results for the fire department.

In our own state we have tried to interest as many fire departments as possible in our tournament activities.

Looking at it from all angles, volunteer fire department tournaments have made a great many things possible in the way of fire protection that could be brought about in no other way. It has made for better trained departments for a general development in the equipment used and in the understanding of the modern fire service. The result is that everybody is interested in reducing fire hazards.

Juda, Wis., Purchases Fire Apparatus—A meeting was held in the community hall of Juda, Wis., to celebrate the purchase of fire apparatus.

Henry Ford Wants Old Fire Apparatus—Henry Ford is reported to be negotiating the purchase of the old hand engine "Housatonic" of Pittsfield, Mass., that was placed in service on October 12, 1844.

Chief Miller of Spirit Lake Has Another Medal—Chief Bob Miller of Spirit Lake, Ia., has just added another medal to his collection—this makes the sixth. At the fireman's school held at Ames, Ia., a gold medal was offered to the most popular fire chief in Iowa at the school. Chief Miller was voted the most popular. He has been chief at Spirit Lake for thirty years and a firemen for thirty-four years.

St. Joseph, Mich., Department Resigns—Members of St. Joseph, Mich., fire department were criticized in the way that they fought two fires recently. Twelve volunteer firemen and two full-time drivers then handed in their resignation but stated that they would remain on duty until a new fire department could be organized. A paid fire department has been proposed to replace the volunteer system which has been in force the past thirty years.

Company Stops to Untangle Traffic

Traffic congestion in New York city has become so acute that firemen had to halt their apparatus at Forty-eighth street and Broadway recently and help the policeman untangle the maze of traffic before they could proceed. At the same time, Engine 65 coming up Fifth avenue was slowed up by similar traffic congestion.

The fire was in the basement of a five-story brownstone dwelling. Attracted by the fire apparatus and the smoke, a crowd of shoppers soon gathered to add to the difficulties of the police and firemen, and the mounted police and reserves had to be called. Burning wall paper in the basement, which was occupied by an upholsterer and furniture dealer, caused a great amount of smoke.

Engine Company 65 was the first to arrive at the fire. When Company 54, after breaking through the traffic, and Engine Company 8, arrived, Battalion Chief George O'Hanlon ordered the men to work in relays.

Firemen in Company 54, in their station house at Forty-eighth Street and Eighth Avenue, said later that the congestion they encountered at Broadway was getting to be common of late.

"In the first place the parked cars tie up the moving traffic," one driver said. "The average crosstown street is 25 feet wide and you are pretty sure of finding parked cars at both curbs, which leaves about 12 feet clearance. Trying to get a fire engine through that space with cars coming and going is some job. Early in the afternoon the theatre crowd is sure to tie up Times Square, and late in the afternoon when they get out it is worse. It is pretty bad during the evening, too."

The same fireman said that the lighting system, which is in many ways a boon to the firemen, is also in many ways a hindrance. If the lights are set against crosstown traffic to give the fire companies coming up Fifth Avenue the right of way, he said, it means that the cross-town traffic stops and holds up fire engines going crosstown.

Fire Chief John Kenlon said that the conditions that confronted the fire companies were nothing new to the Fire Department.

There are too many automobiles and too many taxicabs on the streets in the midtown district," he said. "The Fire Department does the best it can. But I do think the situation can be improved, and should be improved, and I submitted a paper giving my views on it at the convention in Canada, last year."

Conference Will Consider Hose Threads

Sponsored by the American Society of Mechanical Engineers, the American Water Works Association and the National Board of Fire Underwriters, a meeting has been called at the Engineering Societies Building, 29 West 39th street, New York, to consider the manufacture and distribution of fire and small hose couplings. The meeting will be held on March 16 at 10 a. m. A large group is expected to attend.

The conference will consider methods to increase the rate which this standard will be accepted, methods employed by various companies in cutting and gaging standard fire hose coupling thread, the best gages for field inspection work, and recommendations concerning standardization of small hose threads varying from ½- to 2-inch. Other topics bearing on the subject will undoubtedly be brought up.

Massachusetts Chiefs' Club Meets

The February luncheon and meeting of the Fire Chiefs' Club, of Massachusetts, was held in the Parker House, Boston, on Feb. 15, with Chief Selden R. Allen, of Brookline, vice-president, in charge.

The meeting was devoted to discussion of civil service rules, promotions, outside aid, legislation, and insurance. Chief Thomas Qualey, of Medford, was appointed a member of the legislative committee.

Tribute was paid to the efficient work by Chief Jeremiah F. Sullivan, of Fall River, and Chief Philip E. Ham, of Everett, in combatting the large fires recently in the respective cities.

Chief Allen also spoke of the long and valued service given by Chief Edward Saunders, of Lowell, who has been forced out of office by politics.

Among the guests were Peter Carr, Commissioner of Public Safety, of Lawrence, and Russell Codman, of Boston.

Those taking part in discussion were Chief George L. Johnson, of Waltham; Chief Alfred L. Mead, of Quincy; Chief Daniel F. Sennott, of Boston; Chief William C. Mahoney, of Peabody; Chief Homer R. Marchant, of Gloucester; Ex-Chief Edward Saunders, of Lowell; Chief James Warnock, of Swampscott; Chief Charles L. McCarthy, of Worcester; Chief Ray D. Wells, of Falmouth; Chief Frank Martin, of Cohasset; Chief H. J. Hyatt, of Fitchburg; Chief James M. Casey, of Cambridge; Chief John W. O'Hearn, of Watertown; Chief Sewall M. Rich, of Somerville; Chief Daniel Tierney, of Arlington; and Chief Frank Tracey, of Woburn.

HARRY BELKNAP.

Life Sacrificed to Aid Arson Plan

One of the longest prison sentences ever given in a Connecticut court for an attempt made to collect insurance by the destruction of life, was passed on John D. Lawson, of Westport, Conn. Judge Newell Jennings of the Superior Court in session at Bridgeport sentenced Lawson to from seventeen to twenty-five years in Wethersfield prison after he pleaded guilty to a charge of assault with intent to murder in connection with total destruction of his home on Imperial avenue, Westport.

The original charges against Lawson were arson and burning a dwelling with intent to kill. The mandatory sentence for the charge of burning a dwelling with intent to kill carries a life penalty according to Connecticut law. Instead of waiting to be indicted by a grand jury on these charges, Lawson compromised and pleaded guilty to assault with intent to murder and received the lighter penalty.

Lawson, a Dartmouth alumnus, former exporter and a well-known figure in art circles, hired a painter to do some interior work in his home. It was his plan to administer drugs and liquor to the painter, set the house on fire and then collect $77,000 insurance. The charred remains of the painter were to represent the body of Lawson. The plan did not work out as arranged. The house was set on fire but the painter forced a chloroform-soaked rag from his face and in a half-dazed stupor managed to escape by jumping from a second-story window. His story to the police along with the discovery of a kerosene oil can by a fireman, led to Lawson's arrest.

Fire Alarm Superintendents Meet

The mid-winter meeting of the Eastern Association of Superintendents of Fire and Police Telegraph was held in Providence, R. I., on Feb. 8 and 9 in the Providence fire alarm headquarters. There was a dinner in the Providence Biltmore Hotel. A visit was made to Woonsocket to inspect the fire alarm headquarters.

The following papers were read: "How Police Signalling Systems Are An Aid to the Efficiency of Police Departments," by E. Dawson, engineer of the Gamewell Company, Newton Upper Falls, Mass.; "Loud Speaking Equipment as Applied to Fire Department Dispatching," by J. B. Lynch, telephone expert; "Foreign Fire Departments and Their Alarm Systems," by District Chief E. W. Williams, of Lynn, Mass.; and "Protection From Lightning" by W. Dechant.

The committee in charge of the meeting was composed of Supts. Alfred C. Ames, of Providence, R. I.; M. F. Orrell, of Worcester, Mass.; A. C. Cook, of Meriden, Conn.; and George H. Bowen, of the Boston Automatic Fire Alarm Company, of Boston.

Many Attend Boston F. D. Ball

The 49th annual ball of the Boston Fire and Protective Departments which was held in Mechanics' Building on Huntington Avenue, Boston, on the night of February 15, was largely attended. The concert began at eight and was followed by the grand march at nine o'clock.

The reception committee was composed of Fire Commissioner Eugene C. Hultman, Chief Daniel F. Sennott, Supt. Henry E. Thompson, of the Boston Protective Department; Capt. Samuel A. McDonnell, B.P.D.; Capt. J. H. Leary, B.F.D.; Capt. J. W. Shea, B.F.D.; Lieut. Fred J. Dobbratz, Lieut. D. Sheehan, J. J. Higgins, D. J. Murray, J. J. McFadden, H. J. McNealy, M. J. McGonagle, E. J. Coveney, S. L. King, T. F. Timmins, and Dr. W. J. McNally, medical officer, B.F.D.

The floor marshal was T. F. Timmins; assistant marshals were J. J. McFadden and E. J. Coveney. Captain J. H. Leary was chief of aids. Among the guests were Rear Admiral Philip Andrews, commandant of the Boston Navy Yard; Police Commissioner Herbert A. Wilson, and Ex-Fire Commissioner Theodore A. Glynn.

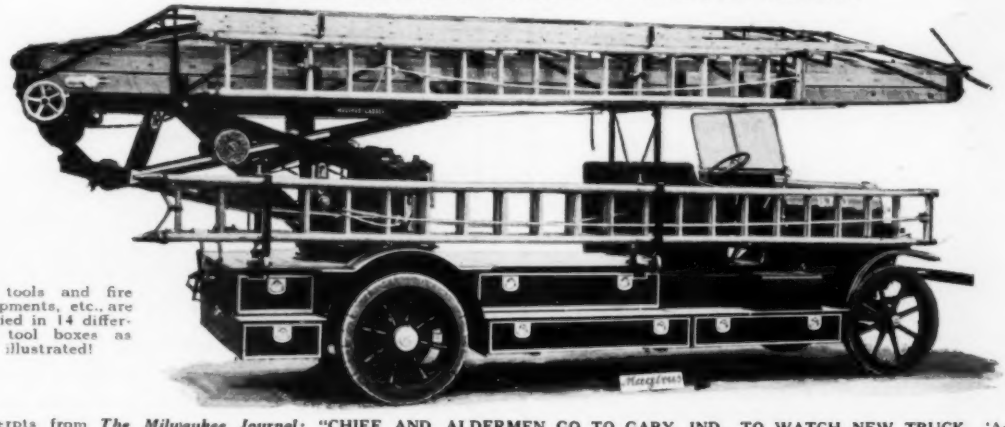
Pontiac, Mich., Has New Truck—Pontiac, Mich., has received a new combination hose and chemical truck. It has two 40-gallon chemical tanks and carries 1,000 feet of hose.

MILWAUKEE, WISC. ORDERS 100 FT. MAGIRUS

Aerial Ladder and Water Tower Truck, after witnessing severe demonstration!

The Truck Carries About 240 ft. of Ladders, and All Fire Equipments. It is Driven and Operated by Only ONE MAN! (U. S. A. Patents.)

100 ft. Aerial Ladder Truck measures only about 31 ft. over-all; 173" wheel-base.



All tools and fire equipments, etc., are carried in 14 different tool boxes as illustrated!

Excerpts from ***The Milwaukee Journal:*** **"CHIEF AND ALDERMEN GO TO GARY, IND., TO WATCH NEW TRUCK.** 'An ingeniously clever contrivance.' This was the verdict of Chief Peter Steinkellner and a committee of the Common Council that journeyed to Gary, Ind., Thursday, to witness a demonstration of an unusual ladder.
The ladder is capable of extension to 100 feet and can be swung at any angle from one to 75 degrees with the street. Since the length of the truck at rest is only 27 feet 4 inches, as against 60 feet for those in service now, it can weave in and out of traffic and can be operated in a more restricted place than the others.—
It is fool proof and automatic and precludes the possibility of such an accident as that at the Milwaukee Seed Co. fire in November, 1920, in which one man was killed and another crippled for life." (The Milwaukee Journal).

AMERICAN MAGIRUS FIRE APPLIANCE CO., Inc.

4243 BROADWAY INDIANAPOLIS, INDIANA

CONVENIENT

WHEN TIME COUNTS

NEW

QUICK ACTION

FIRE ALARM

BOX

Here is a new member of the Harrington-Seaberg family — an improved QUICK ACTION FIRE ALARM BOX. Adequate protection demands convenient and reliable fire alarm signal equipment. Modern, and possessing many refinements H-S fire alarm signal equipment is the choice of cities and towns throughout the country today. Write for detail information on the H-S QUICK ACTION FIRE ALARM BOX.

HARRINGTON-SEABERG CORPORATION

Municipal Signal Manufacturers

DEPT. G, MOLINE, ILLINOIS

We specialize in ALL the requirements of the Modern Municipality for Fire Alarm, Police and Traffic Signal Equipment.

BUCKEYE WHISTLES

Do they hear *You* Coming?

You can MAKE THEM HEAR you by using the same type of signal that is being used by the Locomotive. And why not? For 75 years the great American Railroads have been using WHISTLES to attract attention to an approaching train. If more effective warning signals existed, the railroads would be using them today—for they are spending millions annually to prevent the DESTRUCTION of LIFE and PROPERTY. Our Engineering Department has now made it possible for Fire Apparatus to also enjoy the protection of

BUCKEYE WHISTLES

A Warning Signal that Warns

BUCKEYE IRON & BRASS WORKS - DAYTON, OHIO

MATHEWS

(Reg. U. S. Pat. Off.)

FIRE HYDRANTS

for

DOMESTIC

and

HIGH PRESSURE

Service

NOTE—

The positive waste value.

All operating threads are dry, being above the stuffing-box.

No toggles, no small, quick-wearing parts.

All moving parts are bronze or bronze-bushed.

The outside casing permits replacing a two-way standpipe with a steamer and two-way standpipe without digging up the ground.

An easily installed
EXTENSION SECTION
readily adapts them to new grades.

VALVES and BOXES
CAST IRON PIPE
(Sand-Cast or "Sand-Spun")
FITTINGS

R. D. WOOD & CO., Phila., Pa.

The Burrell All Service GAS MASK

The Standard for the Fire Fighters of America

The Burrell All Service Gas Mask is the only mask approved by the United States Government for complete protection against Carbon Monoxide, Ammonia and every known poisonous gas. Write for Bulletin F-3.

Mine Safety Appliances Co.

Braddock Ave & Thomas Blvd. Pittsburgh, Pa.

Saves time - *and costly hose*

No. 1 (Capacity 3 to 7 tons, weight each 72 lbs.)

No. 2 (Capacity 3 to 12 tons, weight each 116 lbs.)

Complete Information of Prices on request

It's often necessary to move apparatus at a fire. Automobile traffic hates to be held up by a line of hose stretched across the right of way.

Why ruin your hose by driving over it? Or waste valuable time cutting off and disconnecting?

The Wausau Protector is a big time and money saver—easy to handle and carry. Order a set today, or write us for particulars.

Wausau Fire Hose Protector Co.
1520 Harmon Place, Minneapolis, Minn.

Clifton Salvage Covers

Are made of strong, heavy duck and lapped seams and are designed of such thickness and weight as to be light enough to be handled quickly and rigid enough for the most strenuous service. They are rubberized on both sides with a double coating of a high grade, long life, rubber compound.

CLIFTON SALVAGE COVERS are built to stand the heaviest abuse and are used by many of the large Protective Departments.

May we send you further particulars?

Clifton Manufacturing Company
Jamaica Plain District :: Boston, Mass.

AIR-LEC

opens and closes fire station doors automatically

—at the touch of a switch!

Operates swinging, folding and sliding doors. By far the fastest selling door operator on the market. Fifth successful year. Describe your doors. Order by mail. We will guarantee to send you the proper AIR-LEC style and size. Installation is a simple job.

Schoelkopf Manufacturing Co.
Dept. E 1. Madison, Wisconsin

BADGES

of Every Description

QUALITY GUARANTEED

Right Prices
Prompt Delivery

Write for latest catalogue and price list

EVERSON - ROSS CO.
88 Chambers St., New York

Chiefs' Convention to be Held Oct. 17-20

Directors International Association of Fire Chiefs Set Date for Philadelphia Gathering—Topics Selected—Business Transacted at Executive Meeting

SETTING October 17-20, inclusive, as the date of the next convention, the officers and directors of the International Association of Fire Chiefs, in executive session February 28-29 at Philadelphia, the convention city, made plans for what promises to be one of the best attended annual gatherings the association has had in many years. The convention, practically speaking, will occupy the whole week of October 15th with the Eastern Association of Fire Chiefs, organized as the Eastern Division of the International, holding its meeting on the 15th and 16th immediately preceding the official opening of the International on the 17th.

Chief Ross B. Davis of Philadelphia, President I. A. F. C.

The Bellevue-Stratford Hotel, where the meeting was held, was selected as convention headquarters, and the Second Regiment Armory, with 33,000 feet of floor space and located about a mile and a half from the hotel, was picked as the best place available for the exhibits.

An unusual feature of the convention this year, in addition to a good business program, will be a football game between members of the New York and Los Angeles Fire Departments, probably the first match ever arranged between two strictly firemanic teams. Tickets will be sold to the public, and a large share of the proceeds donated to the Association as a step toward building up a permanent fund for the widening of its activities.

Convention Topics Selected

Of the several suggestions received from the membership for topics to be discussed at the convention, the following list was decided upon:

STANDPIPE EQUIPMENT FOR LARGE BUILDINGS, assigned to Chief John Kenlon, of New York.

EDUCATING YOUTH IN FIRE PREVENTION, by Jay W. Stevens, State Fire Marshal of Cal., San Francisco.

ELIMINATING HAZARDOUS BUILDING DEFECTS, by Chief Ross B. Davis, Philadelphia.

FIRE EXTINGUISHERS AND THEIR PROPER USES, by Chief Frank Charlesworth, Providence, R. I.

SALVAGE WORK BY FIRE DEPARTMENTS, by Chief D. W. Brosnan, Albany, Ga.

HAZARDS OF PRINTING AND DRY-CLEANING ESTABLISHMENTS, by Frank C. McAuliffe, Chief of Fire Patrols, Chicago.

PHYSICAL QUALIFICATIONS FOR MEN ENTERING FIRE DEPARTMENTS, to be assigned to a member of the Fire and Police Surgeons Association.

A round table discussion of current fire problems will also be given an important place on the program as in previous years.

Other Important Matters Taken Up

Chief John Kenlon of New York, who plans to spend the month of September abroad, was designated to officially represent the Association at the Congress of European Fire Chiefs to be held at Turino, Italy, in September. Chief Kenlon, a director of the International, will return in time to attend the Philadelphia convention.

Upon presentation of bill for $60 from the National Fire Protection Association, covering dues for the current year, it was decided to withdraw from membership in that organization inasmuch as no benefit was seemingly being derived to warrant this fee.

A committee consisting of Jay W. Stevens, Executive Secretary of the International, George W. Booth, of the National Board of Fire Underwriters, and Fred Shepperd and I. H. Case of FIRE ENGINEERING, was appointed to arrange for the award of the three silver cups donated by Louis B. Mayer. These cups will be given to the cities making the best fire prevention record in accordance with the contest rules adopted at the last convention. Suitable entry blanks will shortly be made available to fire chiefs desiring to take part in this contest.

Representatives of the Metro-Goldwyn-Mayer Company were on hand at the meeting to explain why the motion picture, "The Fire Brigade," from which the association was to receive 25% of the net profits, turned out to be a "flop" financially in spite of all the cooperation the fire departments of the country gave in helping to put it over. While the picture was admittedly a production that should have taken with the public, it was felt that the title, and even the fire department publicity help were the two factors mainly responsible for its failure in that people got the impression that the film was fire prevention propaganda. It was reported that the picture is meeting with good success in foreign countries where it is now being shown and this phase of it may yet help bring a profit on the whole thing. Even though the association had nothing due under the terms of the contract, Metro-Goldwyn-Mayer advanced $17,000 for the fire prevention posters that were put up last year. Chief Kenlon expressed regret that the association did not enter into the contract on the basis of gross profit percentage rather than the net arrangement. At Chief Kenlon's suggestion, Metro-Goldwyn-Mayer have offered to turn the film over to the association, which offer is to be accepted. The picture, on this basis, is to be made available for private showings, with the association receiving all the rental proceeds less distributing cost. It was voted that an audit be made of the "Fire Brigade" figures as they appear on the Metro books.

In view of numerous requests for fire prevention seals received from fire chiefs, the secretary was instructed to have samples and prices submitted at the convention. It

was also decided to get out immediately a small sticker promoting the Philadelphia convention.

Those in Attendance

All the officers were in attendance, as follows: President, Ross B. Davis, Philadelphia; First Vice-President, John M. Evans, New Orleans; Second Vice-President, Ralph Scott, Los Angeles; Secretary, J. J. Mulcahey, Yonkers, N. Y.; Executive Secretary, J. W. Stevens, San Francisco; Treasurer, Peter B. Carter, Camden, N. J. Directors, John Kenlon, New York, D. W. Brosnan, Albany, Ga., and Frank Charlesworth, Providence, R. I.; Chairman of Exhibits, August Gerstung, Elizabeth, N. J.

Others present included T. W. Haney of Jacksonville, Fla., former president; William Cody and P. O. Hebert of Atlanta; Chief J. T. McNulty of St. Petersburg, Fla., Pres. Southeastern Assn. of Fire Chiefs; Chief Wm. Ziegler, Hackensack, N. J.; Fire Commissioner John J. Dorman, New York; J. H. Green and Fred Bensen, Eureka Fire Hose Co., New York; C. T. Rose, A. W. Sullivan and Robt. Hazzard, American-LaFrance and Foamite Corp., New York; George Morley, Morley Fire Alarm Co., Detroit; M. I. Crane, Bi-Lateral Fire Hose Co., Philadelphia; I. H. Case, FIRE ENGINEERING, New York.

Chief Rosar Celebrates Anniversary

Chief Peter J. Rosar, superintendent of fires, Scranton, Pa., has rounded out twenty-five years service in the department on March 1. When he came to his office that morning, he found his desk decorated with many floral bouquets, gifts from his family and his old fire-fighting companies at Engine 2, South Scranton. Shortly after his arrival at fire headquarters he was greeted by a large number of city officials who paid their respects to a man who has served his city well.

Chief Peter J. Rosar

March 1 has a double meaning to Chief Rosar. It marks his thirtieth wedding anniversary, as well.

He joined the department as a volunteer fireman with the Neptune company. The men would gather at the fire station each Sunday to shine up the apparatus and to play pinochle. But those days are now but a memory. The company disbanded when the paid department was started.

Chief Rosar had a rapid rise, serving only a few months as a private. On March 1, 1903, he was promoted to captain. On January 1, 1914, he was made assistant chief and on April 1, 1916, following the retirement of Chief H. F. Ferber, Mr. Rosar was made head of the department.

Although the chief is now eligible to retire on a pension, he has no intention to do so, and James Arigoni, director of public safety, it is believed, will permit him to hold his post as long as Chief Rosar desires. Within recent years, much of the department's time has been devoted to fire prevention. A great deal of constructive work has been accomplished.

Iowa Losses Decrease

According to figures made public by John W. Strohm, state fire marshal, the fire loss for 1927 is $722,176 less than the total for 1926. There has been a reduction of 468 fires. The total number of fires reported was 5,197.

The chief fire cause was sparks from chimneys falling on wooden roofs. Losses on farms have been comparatively heavy in 1927. Spontaneous ignition in hay and straw caused $228,100 damage.

Seventy-four persons died from fire in the state, thirty-one men, twenty-six women and seventeen children.

What's Burning

(*Continued from page* 196)

MILWAUKEE, WISC.—401 Reed St., Heyer Furniture Co.	80
SOUTH WINDHAM, ME.—Mill, Androscoggin Pulp & Paper Co.	25
ST. JOHNSBURY, VT.—Mills of Jackson Butler Corp.	65
SOUTH RIVER, N. J.—Plant of South River Shoe Co.	25
SPRINGFIELD, MO.—Bldg. occupied by Brownie Drug Co.	50
SUDBURY, ONT.—Dept. store of Hennessy & Raciot	50
BALTIMORE, MD.—Four buildings of Bowker Chemical Co.	200
HACKENSACK, N. J.—State Street Presbyterian Church	40
PITTSBURGH, PA.—Property at 534 Penn Ave. destroyed	40
GREENFIELD, MASS.—Chapman Street business property	25
GREAT BARRINGTON, MASS.—Waverly Hotel property destroyed	50
LOWELL, MASS.—United Cloak & Suit Co. and adj. property.	80
ANNA, ILL.—Pillow Drug store and adjacent property	125
MULGRAVE, N. S.—Seaside Hotel and adjacent buildings	40
NORWICH, CONN.—Plant of Norwich Grain Co. destroyed	40
HARLEM, GA.—Methodist Church destroyed	30
SHREVEPORT, LA.—Louisiana Oil Refinery Co. destroyed	80
DUBACH, LA.—Business block destroyed	80
ELYRIA, OHIO—Morris Leslie warehouse destroyed	65
ATLANTA, GA.—Building at 506 Stewart Ave.	100
MINNEAPOLIS, MINN.—Apartment bldg. 2311 Humboldt Ave.	25
WILSONVILLE, NEB.—Five buildings damaged	75
NEW CANAAN, CONN.—DeMott School, Ponus Ridge	25
PEEKSVILLE, N. Y.—Plant of Roberts & Boice Paper Co.	100
DULUTH, MINN.—Bldg. of Standard Salt & Cement Co.	40
SANTA RITA, N. MEX.—Chino Mines Co. Hotel	50
FRANKLIN, IND.—Union Township High School, west of here	35
MEXICO, MO.—Lackland Place destroyed	25
PIONEER, IA.—E. E. Webster store destroyed	25
COLDWATER, MICH.—Mill of C. W. Combs Company	40

Chief Wallace Injured Fighting Fire

Chief George Wallace, eighty-year old head of Cleveland, Ohio, fire department, strained some abdominal muscles while tugging at a hose in fighting the Postal Building fire.

Safety Director Barry suggested the chief take a vacation and go south for a while to recover from the injuries. The director said:

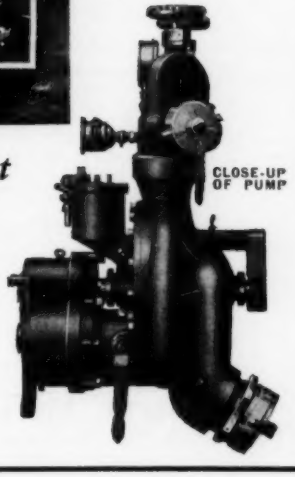
"You're a great chief and a commanding figure but you are too zealous. You're good for many a day yet and we want you to be careful. You've got a lot of subordinates who can use their strength. It is your knowledge we want at fires, not your brawn."

Chief George Wallace Directing a Fire

Chief Wallace has been head of the department since 1901. During his fifty-nine years of service, he has never been injured. He has been offered a full pension if he wishes to retire but he has refused.

While the chief admitted he has been talking with some doctors, he has not stated when he would go to a hospital for treatment.

Write today for our free illustrated bulletin, pointing out the many advantages of this remarkable new pump which can be driven by any make of car, truck or tractor.



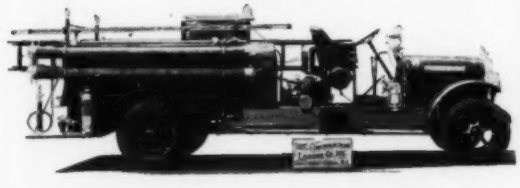
One Half the Price — One Sixth the Weight

For equal capacity and pressure, the new Barton Fire Pump costs only about one-half the customary price, and it weighs only one-sixth as much. Specify the Barton Pump on your next equipment. It can be secured from any of the leading fire apparatus people.

AMERICAN STEAM PUMP COMPANY, Battle Creek, Michigan

BARTON *New* FIRE PUMP

Fire Apparatus



Triple Combinations

Light and Heavy Hook and Ladder Trucks

Fire Department Ladders

Miscellaneous Fire Fighting Equipment

Write us when interested

Combination Ladder Co., Inc.
381 Fountain St., Providence, R. I.

WHY Fire Prevention?

Recent disaster and ruin caused by a number of preventable fires has awed the public, and set Fire Engineers to discussing stricter measures.

Why fire prevention?—because fire prevention is fire insurance—PLUS. And ADT Protection Systems help to prevent fires.

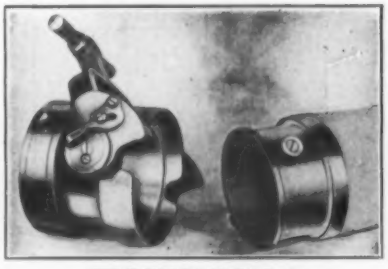
The nation-wide chain of ADT Central Stations which today service the property and profits of thousands of ADT subscribers is evidence of this. And so is the endorsement given ADT by Fire Engineers and executives who have investigated and KNOW of the effectiveness and efficiency of ADT Protection Systems.

Send for our Bulletin 902.

Controlled Companies
American District Telegraph Co.
183 Varick St.
New York

PROTECTION A.D.T. SERVICE

SPEEDY SCIENTIFIC!



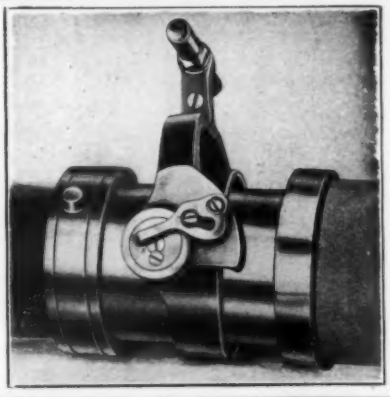
ECONOMICAL EFFICIENT!

This shift-connecting and disconnecting threadless coupling guarantees a speedy getaway when falling walls or uncontrolled fire threaten the safety of men and apparatus. Push the handle for a positive, leak-proof connection—Pull it and it disconnects instantly. This National Threadless Coupling eliminates all threading and misthreading—Solves all hard suction problems—Cannot Leak, Freeze or Jam—No wrenches—No Gasket Wear—Sturdy bronze construction—Built to outlast the apparatus—Easily installed on any pumper. Backed by five years of gruelling service. Write for descriptive literature.

Threadless Couplings for Fire Engines, Oil Tanks and Trucks, Oilhose, etc.

National Standard Threadless Coupling Corp.

Executive Office: 215-217 Beach 122nd Street, Rockaway Park, N. Y.



MORSE

FIRE BOAT EQUIPMENT

Invincible and Callahan Nozzles

Fire Department Supplies

are in use throughout the country and giving unsurpassed service.

Every fire official should be fully acquainted with Morse equipment and have our catalog and other descriptive literature on file for ready reference whenever considering the purchase of new equipment.

You will find that it pays.

Write for Catalog

Andrew J. Morse & Son, Inc.

221 High St. Established 1837 Boston, Mass.

Eastman Improved Platforms and Holders

Write for Catalogue

are indispensable where high pressure service is required. With Eastman equipment any size streams can be easily handled by one man.

Eastman Nozzles and Deluge Sets

are designed by engineers who for over thirty years have specialized in equipment for producing fire-fighting streams that are unsurpassed for solidarity, distance and effectiveness.

Samuel Eastman Co.,

Concord, N. H.

SOUTHWORTH

Quality Fire Apparatus

300 to 750 Gal. Triple Combination Pumpers.

City Service Ladder Trucks, Combination and Chemical Cars.

Recent Sales

Harrison, Maine
300 Gallon Pump

Waterville, Maine
One Tank Combination

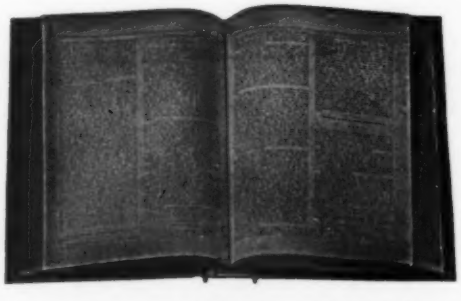
Charlestown, N. H.
500 Gallon Pump

SOUTHWORTH MACHINE CO.

Fire Apparatus Division

52 Sagamore Ave., Chelsea, Mass.

Factory: Portland, Maine *Tel. Chelsea-2105*



Preserve Your Copies

Every issue, as you know, is packed full of interesting and authoritative data, ideas, news, etc., that you like to keep handy for ready reference. Why not keep them all together in a binder? You'll find this special one a great convenience. The cost is only $1.75 and many of our subscribers are already using them. What about you?

Address:

Book Department,

Fire Engineering

225 W. 34th St., N. Y. C.

Name.....

Position.....

Address.....

EDDY

Fire Hydrants

Are given preference by so many fire protection and water works men because they know that more than half a century of experience go into their manufacture and they embody valuable and exclusive features.

Write for the Facts

EDDY VALVE CO.

Waterford, N. Y.

James B. Clow & Sons, Chicago Agents

FIRE DEPARTMENT ACTIVITIES

Stockton, Cal., to Purchase Ladder Truck—Stockton, Cal., will purchase a ladder truck estimated to cost $16,000.

Shreveport, La., Has New Building Code—Shreveport, La., has adopted a new building code.

Morrell, Pa., Organizes Fire Department—A volunteer fire department has been organized in Morrell, Pa.

Reiffton, Pa., to Have New Fire Building—A new one-story fire building will be erected in Reiffton, Pa., for $15,000.

Harrisburg, Pa., to Purchase Two Pumpers—Harrisburg, Pa., will purchase two triple combination pumpers.

Auburn, Me., Firemen Receive New Uniforms—All members of Auburn, Me., department have received new uniforms.

S. San Francisco, Cal., Has New Station—A contract has been let for the erection of a new fire station in South San Francisco for $8,375.

Pittsburgh, Pa., to Have New Fire Station—Sites are being considered in Pittsburgh, Pa., for the erection of a new fire station.

Huntington, Ind., to Have New Station—Excavation has been started for the new fire station to be erected in Huntington, Ind.

Site Purchased for Grand Rapids Station—A site has been purchased for the erection of a combined fire and police station in Grand Rapids, Mich.

Absecon, N. J., Firemen to be Trained—Absecon, N. J., has engaged Maurice Abel, drill master of Atlantic City Fire Department to lecture to the firemen.

Gas Masks Added to Mineola Department—Two dozen smoke and gas masks have been received by the Mineola, L. I., N. Y., fire department.

Quakertown, Pa., to Improve Fire Service—A committee in Quakertown, Pa., is studying ways to improve the fire department and the equipment needed to increase efficiency.

Worcester, Mass., May Have New Fire Station—The city council of Worcester, Mass., has been asked to consider the erection of a fire station in the Highlands section.

Dauphin, Pa., Organizes Patrol—The fire company of Dauphin, Pa., has organized a fire patrolmen's association to protect life and property as well as to take care of traffic.

Detroit Fire Budget is Cut—Mayor Lodge of Detroit has cut $1,729,400 from the $7,368,000 budget as submitted by the fire department. He decided against a new fire headquarters.

Syracuse, N. Y., to Have New Station—The site for a new fire station in Syracuse, N. Y., has been approved. The site favored is opposite the Onondaga Orphans' Home.

More Firemen Added to E. Liverpool, O.—Thirteen firemen have been added to the East Liverpool, Ohio, department thus increasing the personnel to forty men.

Sharon, Pa., to Change to National Standard—The council of Sharon, Pa., have voted to convert the hose thread to that of the National standard.

Fire and Police Departments to Separate—City officials of Chico, Cal., are considering separating the office of police and fire chief.

Hobart, N. Y., Standardizes Hose Threads—The fire hose threads of Hobart, N. Y., have been standardized by a representative of the National Board of Fire Underwriters.

Manhasset Has New Fire Station—Members of the Manhasset-Lakeville fire department of New York attended the housewarming of the new fire station for Company Four.

Elgin, Ia., Farmers Contribute for Protection—The Elgin, Ia., Farm Fire Association purchased a four tank chemical Boyer engine mounted on a six cylinder International chassis.

Garden City Park Dedicates New Station—The new fire station of Garden City Park, L. I., N. Y., has been officially dedicated. The station is a two-story joisted brick building and was erected at a cost of $23,000.

Boston Firemen Commended for Work—Commissioner Eugene C. Hultman of Boston received a letter from a resident commending the firemen for the efficient manner in fighting a residential fire.

Washington, D. C., Considers New Station—Washington, D. C., is again considering the construction of a fire station on Sixteenth street. Such plans were considered before but nothing materialized.

Fourteen Fire Trucks Operated for $612—It has cost Davenport, Ia., $612 for oil, gasoline and grease with which to operate the fourteen fire trucks for one year. The department purchased 2,607 gallons of gasoline during the year.

Wappingers Falls, N. Y., Will Purchase Trucks—Two pieces of fire apparatus will be purchased by the village board of Wappingers Falls, N. Y. One pumper will be assigned to each of the two companies.

Fire Alarm Boxes to be Installed in Davenport Schools—All city schools in Davenport, Ia., will have fire alarm boxes and gongs installed. A fund of $2,500 has been appropriated for this work.

Washington Firemen May Get Pay Increase—A bill is before the House District Committee to increase the pay of Washington, D. C., firemen. Lieutenants would receive a $300 increase, captains, $350 and chief $500.

Des Moines, Ia., Has Low Fire Loss—The 1927 fire loss in Des Moines, Ia., is the lowest since 1924. The loss last year was $268,655 as compared with $388,228 for the year previous to that.

Adair, Ia., Considers Farm Protection—Firemen of Adair, Ia., are trying to interest the farmers in the section to contribute for fire apparatus for rural fire protection. Should the farmers contribute for the apparatus purchase, the firemen are willing to man and take care of the apparatus.

Binghamton, N. Y., May Relocate Station—There is a movement in Binghamton, N. Y., to sell the present West Side fire station and relocate the station in a section where the traffic hazard is not so great. The present site is dangerous to the safety of the men because of frequent passing of trolley cars.

Morrisville, N. J., Company in New Fire Station—The Capitol View fire company of Morrisville, N. J., has moved into its new building. It is a two-story brick structure with two large double doors. The second floor is used for a meeting room, and a smaller room is used by the Ladies Auxiliary.

Jersey City Has Wrecking Truck—A ten ton wrecking truck has been acquired by the New Jersey fire department. It is the plan of Chief Boyle to use the truck for emergency purposes. A special crew from the department's shops will be assigned to operate it.

Careless Dialing Troubles Fire Department—Carelessness in dialing telephone numbers has been responsible for a large number of wrong calls to the Ann Arbor, Mich., department. It has gotten so that when the telephone rings, the firemen do not know if it is a wrong number or a fire alarm.

Biloxi, Miss., Building New Fire Station—A new fire station is being erected in Biloxi, Miss. It will have five living rooms and a bath and an assembly room for fire company meetings. The station is being constructed of hollow tile and will be stucco finished.

Phoenixville, Pa., Wants Pay for Services—Firemen of Phoenixville, Pa., want pay for their services when they respond to fires in neighboring townships. The borough council has stated that unless pay is received for the services, fire protection will be withdrawn.

Sioux City, Ia., Opposed to Pay Boost—Sioux, City, Ia., firemen have been denied a pay increase of ten dollars a month by members of council. The mayor explained that the only reason the increase was refused was because of lack of funds. It is doubtful when any increases may go through as the city budget has been prepared to April 1, 1929.

Plans Made for Four-County Convention—Executives of the Four-County Firemen's Association held a meeting in Allentown, Pa., to plan for the coming convention that will be held in Allentown on May 18 and 19. The association always meets in June, but due to the city's jubilee celebration, it was decided to advance the convention date to May so as to participate in the celebration.

Halifax, Mass., Men Trown Into River—Captain Albert Thomas and Ernald Hollis of Halifax, Mass., were thrown into the Wintuxit river when the steering gear broke on the combination fire truck which overturned and crashed through a bridge on the South Halifax road while the apparatus was responding to an alarm caused by a chimney fire. Neither was injured.

PROPOSED IMPROVEMENTS

Montclair, Essex Co., N. J.—Plans are being made for the purchase of new piece of apparatus for local department, according to reports.

Waterville, Oneida Co., N. Y.—Village may vote on question of purchasing a pumper for the fire department at the coming election.

Ventnor, Atlantic Co., N. J.—Ventnor Heights has started movement for the securing of adequate fire protection. Address F. F. Ditess, 303 N. Derby Ave.

Proposals for Fire Hose

FOND DU LAC, WISCONSIN

Bids received until March 13, 1928

Sealed bids will be received at the office of the City Clerk of Fond du Lac, Wisconsin, at 10:00 A. M., Tuesday, March 13, 1928, for furnishing the following:

1500 feet, more or less, of 2½ inches diameter double jacket cotton, rubber lined fire hose in 50 foot lengths; each length to have male and female couplings with standard thread of 7½ threads per inch and equipped with heavy rocker lug couplings, and to test 400 pounds pressure.

300 feet, more or less, of ¾ inch chemical hose, 4 ply rubber cover in 50 foot lengths; each length to have male and female couplings.

One piece of Fire Hose 22 feet long by 2½ inches in diameter with female thread couplings on each end, 7½ threads per inch.

Two pieces of fire hose, each piece 18 feet long by 2½ inches in diameter with female thread coupling on one end only, 7½ threads per inch.

All of above mentioned hose to have Underwriters' label.

Last three mentioned pieces of hose must be extra heavy as same is to be used for sprinkling purposes.

C. J. FAY,
City Clerk

3-7

Men Injured Answering False Alarm

Hampered by a blinding snow storm and a heavy wind, two fire companies responding to a fire but from different directions in Tyrone, Pa., crashed early one morning recently, seriously injuring some men and wrecking the apparatus. The call was a false alarm.

Before the accident could be averted, the front of the ladder truck rammed the rear end of the pumper with such force that the pumper turned over three times and finally rested upside down. Two men riding on the apparatus were caught beneath the machine. The driver was severely hurt and a hoseman riding on the apparatus received severe lacerations on his face, hands and legs.

After striking the pumper, the ladder truck continued for about fifty feet and finally crashed into one of the new boulevard lights with such force that the globe was thrown against a drug store window, smashing the plate glass. If it had not been for the light post, the truck would have crashed into a brick wall with more disastrous results. Chief Engineer Price riding on the front seat with the driver was thrown out of the seat and knocked unconscious. The driver was uninjured.

One of the new boulevard lights was wrecked and this affected the lights on two streets.

Both the ladder truck and the pumper are beyond repair. The pumper had just been overhauled at a cost of $3,600. New apparatus was ordered immediately.

The injured men are being taken care of by the Tyrone, Pa., Firemen's Relief Association.

An Assignment Card to Reduce Runs

(*Continued from page* 188)

nearest five ladder companies out on a five-alarm fire. Then picture what would happen if another five-alarm fire broke in the same district—probably in a hotel or factory, with people at windows waiting to be rescued. The fire victims would have to wait for the relocation of other companies. Under the proposed plan two ladder companies are immediately at hand for first alarm response and second, third and fourth alarm ladder companies are available within a short distance for next alarm response.

The ideas suggested for this plan are the result of personal observation of methods used in many of the larger cities in the eastern and central section of the country.

CONVENTION DATES

March 15-16—SOUTHWESTERN ASSOCIATION OF FIRE CHIEFS. Annual Convention, Texarkana, Tex.-Ark. Temporary President, J. E. Taplin, Blackwell, Okla.

May 7-10—NATIONAL FIRE PROTECTION ASSOCIATION (International). 32nd Annual Meeting, Atlantic City, N. J. Secretary, Franklin H. Wentworth, 40 Central Street, Boston, Mass.

May 10-11—ARIZONA STATE FIREMEN'S ASSOCIATION. 5th Annual Convention, Bisbee, Ariz. Secretary, Chief W. J. Nemeck, Douglas, Ariz.

May 18-19—FOUR-COUNTY FIREMEN'S ASSOCIATION. Annual Convention and Parade, Allentown, Pa. Secretary, P. J. McNally, Catasaqua, Pa.

June—WISCONSIN STATE FIREMEN'S ASSOCIATION. 41st Annual Convention and Tournament, (tentative date) about middle of June, at Kiel, Wis. Recording secretary, E. Philip Mueller, Jefferson, Wis.

June—OKLAHOMA STATE FIREMEN'S ASSOCIATION. 34th Annual Convention and State Firemen's Training School (tentative date), Blackwell, Okla. (Exact date to be fixed by Executive Board.) Secretary, Charles Slemp, 651 East 12th St., Oklahoma City.

June 5-7—KENTUCKY STATE FIRE CHIEFS' AND FIREMEN'S ASSOCIATION. 10th Annual Convention, Middlesboro, Ky. Secretary, Captain S. G. Render, Fire Department Instructor, 303 Speed Building, Louisville, Ky.

June 5-7—NEW YORK STATE ASSOCIATION OF FIRE CHIEFS. 22nd Annual Convention, Troy, N. Y. (meeting in conjunction with Mayors' Conference). Secretary, Chief John H. Golden, Cohoes, N. Y.

June 8-9—DELAWARE COUNTY FIREMEN'S ASSOCIATION. 22nd Annual Convention and Parade, Chester, Pa. Recording Secretary, Timothy McCarey, Chester, Pa.

June 16—LEBANON COUNTY FIREMEN'S ASSOCIATION. Annual Convention, Palmyra, Pa. Secretary, William I. Kutz, Box 233, Myerstown, Pa.

June 19-21—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. 39th Annual Convention, Kingston, N. Y. Secretary, Chief Chris W. Noll, Poughkeepsie, N. Y., Fire Department.

June 20-23—PROVINCIAL FEDERATION OF ONTARIO FIRE FIGHTERS. Annual Convention, King Edward Hotel, Toronto, Ont., Can. Secretary-Treasurer, David H. Lamb, 132 Bellevue Avenue (2) Toronto.

June 25—NORTHWEST FIREMEN'S ASSOCIATION. Semi-Annual Convention, Centerton, Ark. Secretary-Treasurer, F. M. Brock, Bentonville, Ark.

June 26-29—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 6th Annual Convention, Burlington, Vt. Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass., Chairman, Exhibit Committee, Frank M. Tiffany, Gamewell Company, 1022 Commonwealth Avenue, Boston.

June 28-30—ALLEGHANY COUNTY FIREMEN'S ASSOCIATION. Annual Convention, Turtle Creek, Pa.

July 4-6—DOMINION ASSOCIATION OF FIRE CHIEFS. 20th Annual Convention, Kingston, Ont. Secretary, Chief James Armstrong, Kingston.

July 5-7—SOUTHEASTERN FIRE CHIEFS' ASSOCIATION. Annual Convention, Atlanta, Ga. Secretary, Chief H. E. Whitener, Hickory, N. C.

August—UTAH STATE FIREMEN'S ASSOCIATION. 21st Annual Convention, Binham Canyon, Utah. (Date to be set at April meeting.) Secretary, Harris E. Anderson, Fire Headquarters, Salt Lake City, Utah.

August 1-2—CENTRAL PENNSYLVANIA FIREMEN'S ASSOCIATION. Annual Convention, Clearfield, Pa. Secretary, John E. Johnson, DuBois, Pa.

Aug. 22-24—VIRGINIA STATE FIREMEN'S ASSOCIATION. 42nd Annual Convention, Ocean View, Va. Secretary, Chief J. B. Gordon, Newport News, Va.

Sept. 18-19—IOWA FIREMEN'S ASSOCIATION. 51st Annual Convention, Independence, Ia. Secretary, E. E. Parsons, Marion, La.

Sept. 18-23—PACIFIC COAST ASSOCIATION OF FIRE CHIEFS. 35th Annual Convention and School of Instruction for Firemen (Tentative Date), Sacramento, Cal. Secretary, State Fire Marshal Jay C. Stevens, Merchants' Exchange Bldg., San Francisco, Cal.

Oct. 1-5—PENNSYLVANIA STATE FIREMEN'S ASSOCIATION. Annual Convention, Uniontown, Pa. Secretary, Charles F. Clark, 411 Bellevue Avenue, Wayne, Pa.

Oct. 9-11—RAILWAY FIRE PROTECTION ASSOCIATION. Annual meeting, place to be selected later by Executive Committee. Secretary-Treasurer, R. R. Hackett, Baltimore & Ohio R. R., Baltimore, Md.

Oct. 22-24—KANSAS STATE FIRE CHIEFS and FIREMEN'S ASSOCIATIONS and WOMEN'S AUXILIARY. 13th and 42nd Annual Conventions and 3d Meeting, respectively, Liberal, Kans. Secretary, Chief K. D. Doyle, Wamego, Kan.

Babylon, N. Y., Purchases City Service Truck—Babylon, L. I., N. Y., has placed an order with the Woodhouse Manufacturing Company for a Maxim city service, double bank ladder truck.

Urbana, O., Has Low Fire Loss.—Urbana, Ohio, has been fortunate in keeping its fire loss low. This is attributed to constant clean-up inspections and to the aggressiveness of the chief who was formerly a captain in the Cincinnati department.

Charles Smith Re-Opens Branch Office—Charles H. Smith has reopened his office as New England branch manager of the Buffalo Fire Appliance Company of Buffalo, N. Y. It is reported that he has some extensive plans for the motor apparatus field.

"Shuredry"

Waterproofed

SALVAGE COVERS

Chief D.W. Brosnan

See what Chief Brosnan, of the Albany Fire Department has to say about Shuredry for salvage work.

"We have used SHUREDRY covers in all our salvage work for a number of years; we have found them durable and they give absolute satisfaction. They are light and easy to handle which makes for speed, and speed means everything in salvage work."

"We carry six standard size covers on each piece of apparatus and through their use we have saved thousands of dollars of water damage that otherwise could not have been avoided. I have no hesitancy in recommending them."

Write for Shuredry samples and prices.

FULTON BAG & COTTON MILLS

Atlanta Dallas Brooklyn St Louis
Minneapolis New Orleans

Since 1868 the products of Union Water Meter Company have been regarded generally as the standard of perfection. Constructed on sound, scientific principles, improved with the advance of time, the combined experience of nearly sixty years stands behind these manufactured specialties.

Worcester Fire Alarm Signals are built to give an alarm that is heard above the din of traffic, yet with a tone that is not piercing or unpleasant. Carries great distances. Four sizes.

Ask for catalog R-51.

Union Water Meter Co.

Worcester, Mass.

New York:
50 Church St.

Philadelphia:
411 Bulletin Bldg.

WORCESTER ALARM SIGNALS

Contest Open to All Fire Chiefs Who Now Have

BLANCHARD ADJUSTABLE ANGLE NOZZLE TIPS IN THEIR DEPARTMENTS

We will give a $35.00 Blanchard Adjustable Angle Nozzle Tip to each of the writers of the four best letters received from March 7th to June 1st, stating the advantages of using these tips at fires. It is understood that all letters received in this contest can be published.

Send all letters to:

ARTHUR BLANCHARD
25 Hampshire St., Cambridge, Mass.

6 Patented Features

ERICK SIREN

Thorough Weather Protection
Erick Sirens do not clog up. Snow and ice cannot enter and stop sounding rotor. Completely protected and sheltered from outside influences.

Features That Prove Supremacy

Instant Alarm
Every telephone is a fire alarm station, permitting operator to sound alarm instantly, giving your fire department a chance to get the jump on the fire.

Universal Sound Projector
The Erick Sound Rotor and Deflector is built to instantly send a Fire Alarm.

Our Free Trial offer is made in all sincerity. We welcome your inquiry.

ERICK ELECTRIC SIREN CO.
STATE AND FILLMORE AVE., ST. PAUL, MINN.

KilSoot

TRADE MARK REG.

Puts Out Chimney Fires

A better, safer and surer way to prevent and extinguish chimney fires is offered to fire chiefs and fire prevention bureaus in the use of "Kilsoot."

We repeat our offer to send liberal samples and full details regarding this remarkable chemical product — gladly furnished upon request.

"Make KilSoot Standard Equipment!"

KILSOOT CHEMICAL COMPANY
1834 Broadway, New York, N. Y.

New Victor Gas and Fume Mask

Better Rubber. Longer Life. Better Fitted. Moulded to Fit the Face. Better Vision. Renewable Lenses. Better Air. Better Work. Low Prices. High Quality.

Over 5,000 Victor Gas Masks in Service

Full Line Fire Dept. Supplies and Equipment.

New 43 Edition Catalog on Request

The Woodhouse Mfg. Co., Inc
156 Chambers St., New York

D. A. Woodhouse Pres. and Gen. Mgr. **George J. Kuss** Vice-Pres. and Treas

OVER TWO HUNDRED

DON'T FEAR

Smoke and Fume Respirators

Used in 50 Southern New Jersey towns. Assure Safety to the Firemen.

Are you Protected?

Price $5 each. With airtight goggles $6.

Send for descriptive catalogue.

Gibbs-Wahlert Mask Co.

Station G, Box 168, New York, N. Y.

Quick-Acting Reliable

Anderson-Hale Improved

FIRE STATION DOOR OPENERS

Over 1,300 sets of Anderson-Hale Fire Station Door Openers are in successful use. They provide simple, durable, quick-acting doors that open inward. No obstruction to sidewalk. Attractive in appearance, cannot sag, closes tight, excludes cold, gives clear opening. Opens from driver's seat or from floor. Many repeat orders from users.

Write for complete information.

The Anderson Coupling & Fire Supply Co.

Mfrs. Motor Fire Equipment and Fire Supplies

Kansas City, Kansas

JOHN H. CLAY, INC.

1320 Ridge Ave., Philadelphia, Pa.

Established 1864

Manufacturer Siamese connections, fire hose couplings, plug connections, wrenches, etc.

JACOB REED'S SONS

Founded 1824 by Jacob Reed

FIREMEN'S UNIFORMS

Thoroughly tailored of especially selected fabrics. Uniforms that look well, wear well and that will give entirely satisfactory service.

Reed's Uniforms are most economical because they represent full value for the amount expended.

Write for catalog and prices.

1424-1426 Chestnut St., Philadelphia, Pa.

COREY Hydrants as manufactured by "Rensselaer" are being used to fight fire in every State of the Union. Made of the very best material and workmanship.

"The Rolls-Royce among Fire Hydrants"

RENSSELAER VALVE CO.,

TROY, N. Y.

RED ARROW SIREN

Siren with Storm Hood

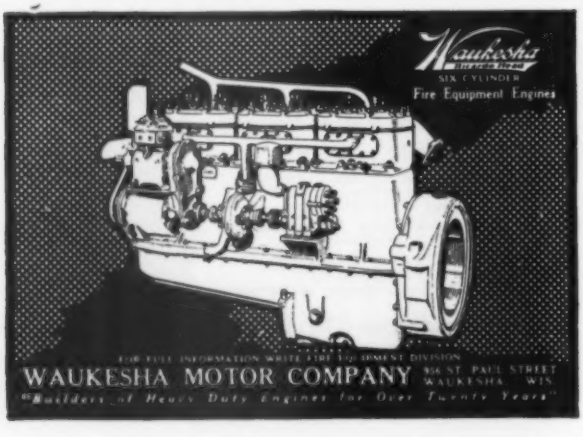
1. Double-tone, and of greatest carrying power.
2. Ball bearings throughout.
3. Accurately machined and balanced.

30 Days' Free Trial

Write for Circulars

DECOT MACHINE WORKS

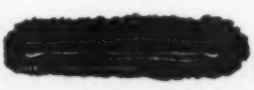
Sauk City, Wis.


Waukesha
SIX CYLINDER
Fire Equipment Engines
FOR FULL INFORMATION WRITE FIRE EQUIPMENT DIVISION
WAUKESHA MOTOR COMPANY 806 ST. PAUL STREET WAUKESHA WIS.
"Builders of Heavy Duty Engines for Over Twenty Years"

BI-LATERAL FIRE HOSE

THE BI-LATERAL FIRE HOSE CO.

230 West Randolph St., Chicago, Ill.



The principal reason for the failure of fire hose before the Bi-Lateral construction was invented and why it had to be purchased so frequently by municipalities is because it was necessary to carry it in a flattened position.

The Bi-Lateral hose is made to flatten. This is why Bi-Lateral fire hose is guaranteed for six years instead of three.

When coupled with rocker lug couplings it makes a superior fire fighting line.

FALSE ALARMS

Drawing by "Art" Espey

"Hey! Whatsa idea going into that smoky basement?"

"The boss wants a cellar pipe and I'm going to look for one."

LEARNING FAST

When the chief from Doville returned from the annual state convention, he was enthused with the plan to have a fire department band. A man who professed to know a great deal about such matters was hired to organize this musical unit.

No more could the fire station be said to be a quiet place. One could hear the gruff umpah—umpah, and shrill blast of the cornet almost any time. Even when the men went home they could be seen with black musical instrument cases.

Just as one shift was going out, a friend saw the firemen.

"What are you learning to play?"

"Oh, the French horn."

"And you?" asked the questioner.

"Oh, I'm just learning to suffer in silence."

THE REASON WHY

As a captain was talking to a shopkeeper, some salesman came in. The captain had been explaining about some fire hazard in the store that had to be removed, but he respectfully stepped aside for the newcomer. The man tried to sell fire insurance.

"Have you got a license?" asked the officer.

"No, I haven't."

"Don't you know you can't sell fire insurance in this city without a license?" said the captain.

"I knew I couldn't sell any insurance, but I didn't know why."

FOLLOW THE LEADER

One advantage of fire chief conventions is the opportunity for learning the ways of the world. One evening, a number of chiefs went to a hotel for dinner and they invited a small town chief who had not as yet been initiated properly into the fire fraternity.

They talked of the papers presented at the meeting that day while they waited for the waiter to come. Finally he did come.

"I'll start my dinner with an oyster cocktail."

"The same for me," said another chief.

The chief from the small community looked puzzled. He finally said:

"If the other chiefs want to get drunk before they eat, I suppose it's all right for me. I'll also start in with an oyster cocktail."

NOT WORTH THE TIME

The editor of the *Fire Plug*, the publication of the Western Actuarial Bureau, tells of the time that he was induced to write a congratulatory letter to a young winner of a fire prevention contest. Shortly after the letter was sent he received the following reply:

Dear Richard:

I am not going to write no more Fire assays no more. Last time I wrote one it took me six hours to write the poem and all I got was a airoplain and I lost my art lesson which I had to wait three hours just for a plaything. Those firemen ought to have more sense than to give little cow bells and airoplains away. My mother told me to go back and take back the poem but I did not.

Yours sincerely,

Hilmuth Thoms.

RUSHING THE CURE

Tom had swallowed smoke. He may have swallowed other things with it, but at any rate, Tom was given permission to go to the fire department physician. The doctor examined him and said:

"Here you take this medicine and if that doesn't fix you up, you come back and I'll give you something else that will."

"Please doctor," said Tom, "I've got to double on shift for some one who has time off and I can't come down very often. Couldn't you give me the other stuff now."

MISLEADING

The chief of . . . was a most popular man. Whenever the local rural and volunteer fire departments had a monthly meeting, they always came to him with the invitation to address the department. It so happened that he was booked to make three addresses in a row—one in a village fire department, one at a Rotary club luncheon, and the other at a rural community.

A reporter came to see the chief after his first talk.

"I don't want you to publish anything that I have said in my talk as I have several other places to address and I intend to give them the same talk," said the chief.

Imagine the feelings of the chief to see the following announcement in the newspaper:

"Chief . . . delivered an excellent talk before the fire department members. He gave some very good stories, but unfortunately they cannot be printed."

NOT CALLED FOR

Firemen are called to do many things. In this particular town a ladder company was called to rescue a man who was floundering in a lake. Imagine the surprise of one fireman when he saw that the man being hauled in was his friend.

"How come you fell in?" he asked.

"The deuce, I didn't come to fall in. I came to fish," was the reply.

"Whatever I say goes."

"Then talk to yourself a while."

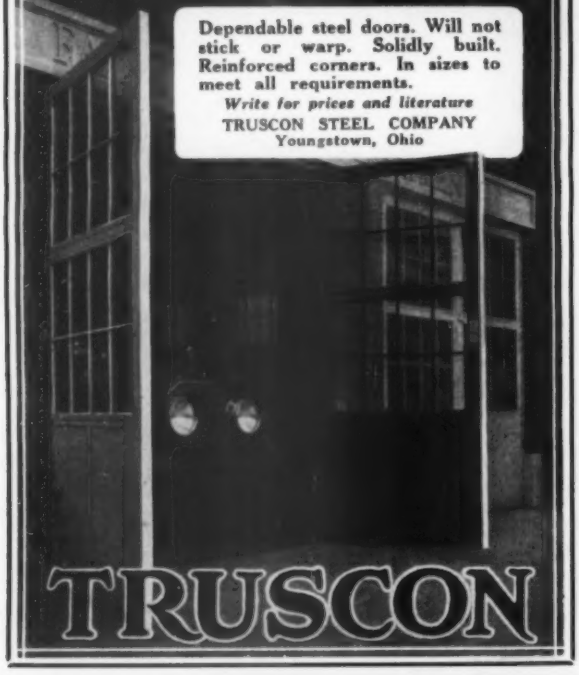
THE LOW MAN PAYS! GO PULL ANOTHER BOX!
WHAT! AGAIN?
PULL AN ODD NUMBER THIS TRIP!
WE'VE GOT THE FIREMEN NUTS!
IT'S A NEW GAME CALLED "WILD GOOSE CHASE POKER" THE LOSER HAS TO TURN IN A FALSE FIRE ALARM, EACH TIME!

Drawing by "Art" Espey

Poker In Its Latest Form

When the cigar tastes bitter, the bootlegger fails to come up with promises, and the usual poker crowd has lost its appeal, here is something to awaken interest. The plan has been tried with some success in Harrisburg, Pa.—in fact Chief Tawney would like to learn the names of the players. A number of false alarms were turned in at about the same time and the chief believes that some group has been playing "fire box pull." Some call it "wild goose chase poker." The loser of each game has to go out and turn in a false alarm. How interesting it must be for the fire department if such groups play until the early hours of the morning.

STEEL DOORS for FIRE STATIONS



Dependable steel doors. Will not stick or warp. Solidly built. Reinforced corners. In sizes to meet all requirements.

Write for prices and literature

TRUSCON STEEL COMPANY
Youngstown, Ohio

TRUSCON

BRAXMAR
BADGES

have been the recognized standard for fire departments for almost 50 years. Used everywhere. More than 900 designs. Send for illustrated catalog and prices.

C. G. BRAXMAR CO.
242 W. 55th St., N. Y. C.

MAXIM FIRE APPARATUS

If your apparatus is Maxim-built it will prove dependable and reliable at all times.

Complete information upon request.

MAXIM MOTOR COMPANY, Middleboro, Mass.
Metropolitan Sales Agents:
The Woodhouse Manufacturing Co., 156 Chambers St., N. Y.

HALE PUMPS

LONGER effective life, higher efficiency and greater freedom from trouble may be had by using Hale Dreadnaught Fire Pumps.

HALE FIRE PUMP CO.
Conshohocken, Pa.

LARKIN Shut-off Nozzles

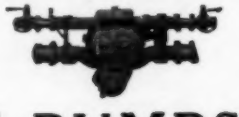
Over 2000 Fire Departments

have 15,000 Larkin Shut-off Nozzles in service. They have a successful record that is not exceeded by any article used in the fire service. Specify and insist upon them in buying new apparatus.

Write for catalog

The LARKIN Mfg. Co.
Dayton, Ohio

High Grade Fire Dept. Supplies of All Kinds



ROTARY PUMPS
FIRE HYDRANTS

Waterous

Send for our Complete Catalog
Agents in Principal Cities

WATEROUS COMPANY
St. Paul, Minnesota

Your Catalog Page

Fire Protection Equipment And Supplies

1 Acid Siphons.
2 Adaptors for Changing Hydrant Threads.
3 Acid Jars and Rings.
4 Aerial Ladders, Detachable.
5 Aerial Trucks.
6 Alarms, Siren, Electric.
7 Alarm Systems, Industrial.
8 Alarm Systems, Municipal Telegraphic.
9 Alarms, Thermostatic.
10 Asbestos, Clothing
11 Badges, Insignias, Buttons, etc.
12 Banners, Trumpets, etc.
13 Battery Jars.
14 Battery Zincs for Fire Alarm Batteries.
15 Bells, Fire Alarm, Municipal.
16 Body Equipments.
17 Boxes, Gongs, Reels, Registers, Fire Alarm.
18 Brakes, Air.
19 Brake Linings.
20 Brooms, Fire.
21 Building Materials, Fire Retardant.
22 Caps, Firemen's.
23 Chains, Non-Skid, Fire Apparatus.
24 Chassis for Fire Apparatus.
25 Chemical Engines and Tanks.
26 Chimney Cleaning Compounds.
27 City Service Trucks.
28 Coats & Suits, Firemen's Quick Hitch.
29 Combination Chemical & Hose Cars.
30 Cutting & Welding Equipment, Blow Torch.
31 Cutting & Welding Equipment, Electric.
32 Deluge Sets.
33 Door Openers, Fire Station, Automatic.
34 Extinguishers, Fire, Soda & Acid.
35 Extinguishers, Fire, Tetrachloride.
36 Extinguishers, Fire, Foam.
37 Extinguishers for Chimney Fires.
38 Fire Boat Nozzle Equipment.
39 Fire Department Supplies, General.
41 Fire Exit Devices, Door Opening.
42 Fire Alarm Posts.
43 Fire Escapes, Portable.
44 Fire Escapes, Rigid.
45 First Aid Equipment.
46 Flare Lights.
47 Flashlights, Hand.
48 Foam Liquid for Extinguishers.
49 Gas Masks and Respirators.
50 Gas & Smoke Helmets.
51 Gasoline & Oil Handling Equipment.
52 Goggles, Firemen's.
53 Helmets, Metal, etc.
54 Hose Carts, Reels & Racks.

Help Yourself!

This page is here to make it *convenient* for you to get complete specifications and prices from *reliable* manufacturers of equipment needed for your department. It is *your* page to use freely without any obligation.

To get the information you want, just mail in the coupon below with your name and address and numbers that indicate the equipment listed below on which you would like descriptive literature.

We will then notify reliable manufacturers of your interest in such equipment and request that they send you complete information. They will gladly do this and it will be a pleasure for us to help you in this way. No charge whatever! Help yourself!

For Information on Any Equipment Not Listed, Write on This Page or Use Separate Sheet.

55 Hose Clamps.
56 Hose Fire.
57 Hose, Chemical.
58 Hose Holders.
59 Hose Jackets.
60 Hose Standardization Tools.
61 Hydrant Draining Pumps.
62 Hydrants, Fire.
63 Jacks for Fire Trucks.
64 Jacks, Shoring & Prying.
65 Ladders, Fire.
66 Lightning Arresters.
67 Motorcycles, Fire Dept. Equipped.
68 Nets, Life.
69 Nozzles, Pipes & Misc. Brass Goods.
70 Packings, Pumps.
71 Pads, Pole Hole.
72 Paints, Fire Resisting.
73 Primming Ether, Motor.
74 Pumping Cars, Standard.
75 Pumping Cars, Foam.
76 Pumps, Fire Apparatus.
77 Pumps, Fire Service, Stationary.
78 Pumps, Portable, for Fire Protection.
79 Record Books, Fire.
80 Relief Valves.
81 Reviving Apparatus, Oxygen.
82 Rubber Clothing.
83 Searchlights.
84 Shingles, Fire Retardant.
85 Shirts, Firemen's Special.
86 Sirens, Apparatus & Chiefs' Cars.
87 Sliding Poles.
88 Soda & Acid Chemicals.
89 Spark Plugs, Fire Apparatus & Motorcycles.
90 Squad and other Auxiliary Cars.
91 Sprinkler Head Shut-Offs.
92 Sprinkler Supervisory Service.
93 Sprinkler Systems, Automatic, Foam.
94 Sprinkler Systems, Automatic Water.
95 Starters, Fire Apparatus, Automatic, Air.
96 Steam Fire Engines.
97 Tarpaulins & Fire Blankets.
98 Tetrachloride Chemicals.
99 Thawing Equipment, Hydrant.
100 Tires, Fire Apparatus, Pneumatic, Solid, Cushion and Non-Skid.
101 Tractors.
102 Traffic Clearing Systems.
103 Triple Combination Pumping Cars.
104 Uniforms.
105 Water Towers.
106 Wheels, Cushion.
107 Whistles, Fire Alarm, Compressed Air.
108 Whistles, Fire Alarm, Steam.
109 Whistles, Fire Apparatus.
110 Wrecking Trucks.

---------- TEAR OFF HERE ----------

FIRE ENGINEERING

238 West 34th St., New York City.

As a fire protection official I should like to have descriptive literature and complete information mailed to me, without cost or obligation, on the equipment indicated by the following numbers:

Nos.....

Nos.....

Nos.....

Date.....

Name.....

Position.....

Street.....

City and State.....

.....

.....3-7

Don't take our Word for it
Try The Big Chief Yourself

Sterling Big Chief
Furnished with all mountings and connections ready to put on.

We want you to try the new Sterling Big Chief on your own car. If this most powerful of all apparatus Sirens, doesn't clear the way quicker and give you a safer, faster run than you've ever had, then those chiefs that call it "the best apparatus Siren ever built" are wrong.

Send the coupon below for free trial.

THE STERLING SIREN FIRE ALARM CO.,
61 Allen Street, Rochester, N. Y.

You may ship us express collect your Big Chief Sterling Alarm Siren ____ voltage ____ bracket on approval. If unsatisfactory we will return prepaid writing you when we ship it. Otherwise we will remit $90.00 within 30 days.

Name .....

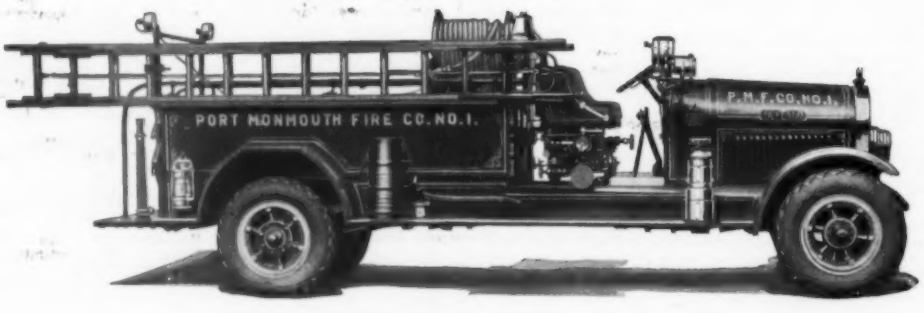
Title .....

City and State.....

STERLING

OLDEST AND LARGEST EXCLUSIVE MAKERS OF SIREN SIGNALS

Buffalo Type 50



Speaks For Itself In
Construction — Service — Power

Write for Detailed Specifications

BUFFALO FIRE APPLIANCE CORP.

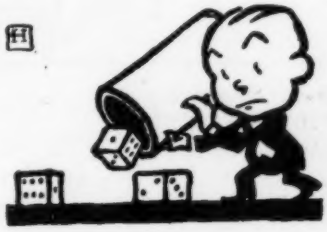
44 Central Ave., Buffalo, N. Y.

ADVERTISING INDEX

Advertising Pays—in Fire Engineering

	PAGE
Ahrens-Fox Fire Engine Co.	181
American District Telegraph Co.	207
American Fomon Company	199
Amer. LaFrance & Foamite Corp.	*Inside Front Cover*
American Magirus Fire Appliance Co., Inc.	203
American Steam Pump Co.	207
Anderson Coupling & Fire Supply Co.	212
Bi-Lateral Fire Hose Co.	212
Blanchard, Arthur	211
Braxmar Co., C. G.	214
Buckeye Iron & Brass Works	203
Buffalo Fire Appliance Corp.	216
Clay, Inc., John H.	212
Clifton Mfg. Co.	204
Combination Ladder Co.	207
Darling Valve & Mfg. Co.	182
Decot Machine Works	212
Eastman Co., Samuel	208
Eddy Valve Co.	208
Erick Electric Siren Co.	211
Eureka Fire Hose Mfg. Co.	*Front Cover*
Everson-Ross Co.	204
Fabric Fire Hose Co.	*Back Cover*
French & Hecht	179
Fulton Bag and Cotton Mills	211
Gamewell Co.	184
Gibbs-Wahlert Mask Co.	212
Hale Fire Pump Co.	214
Harrington-Seaberg Corp.	203
Information for Buyers	**215**
International Harvester Co.	*Inside Back Cover*
Kilsoot Chemical Co.	211
Larkin Mfg. Co.	214
Maxim Motor Co.	214
Mine Safety Appliance Co.	204
Morse & Sons, Inc., Andrew J.	203
National Standard Threadless Coupling Corp.	208
Nott Co., W. P.	198
Prospect Fire Engine Co.	183
Reeds Sons, Jacob	212
Rensselaer Valve Co.	212
Schoelkopf Mfg. Co.	204
Southworth Machine Co.	208
Sterling Siren Fire Alarm Co.	216
Truscon Steel Co.	214
Union Water Meter Co.	211
Waterous Company	214
Waukesha Motor Co.	212
Wausau Fire Hose Protector Co.	204
Wood & Co., R. D.	204
Woodhouse Mfg. Co.	211

You Can't Lose When You Buy From These Manufacturers



The advertisers you find listed above are generally recognized as the leading manufacturers in their respective fields.

Whenever you are considering the purchase of new equipment for your department, you'll find it will pay to write them about your requirements.

They are in position to be of real service to you, and they are always ready to cooperate with you in every way possible—if you will only let them.

Before you place orders for new equipment, be sure you have complete information and prices from all of them. You and your department will benefit by it

The Publishers

Three New Books
Every Fire Officer
Should Have

Questions and Answers for Battalion and Deputy Chiefs

by Geo. J. Kuss, Former Deputy Chief N. Y. F. D., and Fred Shepperd, B. Sc., M. E., Managing Editor, FIRE ENGINEERING. It contains 210 pages of invaluable instruction for progressive fire department officers, and is indispensable for Captains, Battalion and Deputy Chiefs and other officers studying for promotion.

It contains questions from promotional examinations throughout the country, with answers by Deputy Chief Kuss, (N. Y. F. D.) and Fred Shepperd. Price $2.00—postpaid $2.15.

Questions and Answers for Lieutenant and Captain

by George J. Kuss, Former Deputy Chief N. Y. F. D., and Fred Shepperd. A 290-page book of promotional questions and answers for candidates for lieutenants and captains.

It includes questions asked at promotional examinations in practically every city in the country where civil service examinations are held, with answers by Chief Kuss and our Editor. Price $2.50—postpaid $2.65.

Simplified Fire Department Hydraulics

BY FRED SHEPPERD, B. Sc., M. E.

A brand new book describing in a simplified method all of the rules and formulæ required in the solution of fire department promotional examination questions in hydraulics.

Also contains nearly 200 problems on hydraulics asked in examinations in large departments throughout the country. 170 pages fully illustrated. Price $2—postpaid $2.15.

Use This Coupon to Order Your Copies

Book Department,
FIRE ENGINEERING
225 W. 34th St., N. Y. C.

Please send me ..... copies of Questions and Answers for Battalion and Deputy Chiefs, ... copies of Questions and Answers for Lieutenants and Captains, and ..... copies of Simplified Fire Department Hydraulics, for which I enclose a money order for $.....

Name..... Rank.....

Address..... Date.....

The Municipalities Are Buying INTERNATIONAL TRUCKS

for Fire Duty

GOOD looks in every model, from the ¾-ton Special Delivery up to the big chain-drive units. *Stamina* to match the looks and then some, as proved by our many and long-standing records among business firms and municipalities. *Experience* in truck development back of the trucks—for International Harvester has been building better trucks for 24 years. *Service* "around the corner" for every truck in the line, wherever its owner or its job takes it; International Harvester now maintains *160 Company-owned branches* in the United States and Canada.

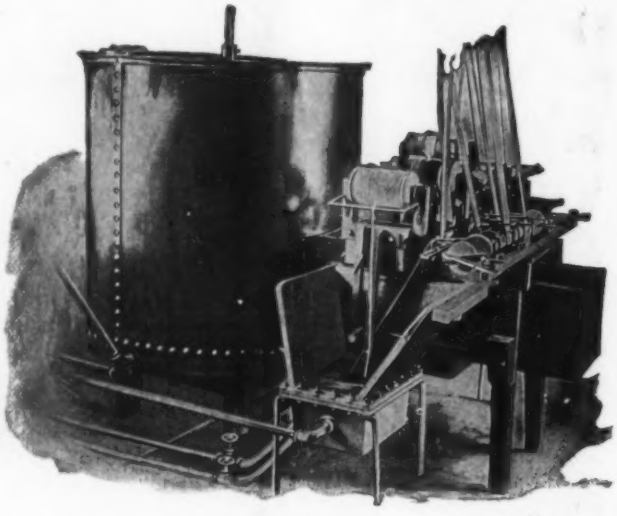
Above: Two International Trucks recently put into fire-fighting service in Kansas. The truck at the left is owned by the City of Hays, Kansas, the one in the foreground by the City of Mulvane, Kansas. Fast, economical, capable trucks for modern fire fighting.

Sizes and models for every type of fire-fighting equipment—the Special Delivery for ¾-ton loads; Speed Trucks, 4 and 6-cylinder, 1¼, 1½, and 2-ton; Heavy Duties, double-reduction and chain-drive, to 5-ton.

See the chassis at the nearest display room, or write for complete information.

INTERNATIONAL HARVESTER COMPANY
OF AMERICA
(Incorporated)

606 So. Michigan Ave. **Chicago, Ill.**



One of the machines used in the manufacture of the famous

FABRIC

Wax and Para Gum Treated Cotton Rubber Lined Fire Hose

OUR first process—that of treating cotton yarn with melted wax and Para gum. The "wax" is ozocerite and the "gum" is smoked latex from the rubber tree. This compound is kept in hot solution in the steam heated cylindrical tank of the TREATMENT MACHINES. The hose cord passes through this hot "treatment" and becoming thoroughly impregnated renders the fire hose fabric from which it is woven, MILDEW-PROOF ROT-PROOF, PLIABLE, STRONG and DURABLE.

Fabric Fire Hose Co.

9-15 Park Place, New York, N. Y.
124–126 W. Lake Street, Chicago

Atlanta	Dallas	Minneapolis	Los Angeles
Boston	Binghamton	Portland	Newark
Columbus	Baltimore	San Francisco	Pittsburgh

PRINTED BY THE WILLIAMS PRESS, ALBANY, N. Y.